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AGGIE LIFE

Massachusetts

Agricultural

College.

AMHERST.
MASS.

Sept. 19, 1900.

L. XI.

NO. 1.

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HARRY CLARK,
COLLEGE OUTFITTER,
UNDER THE HOTEL.

AGGIE LIFE.

VOL. XI.

AMHERST, MASS., SEPTEMBER 19, 1900.

NO. 1

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Editorials.

BELIEVING that the Military Department is one of the strongest features of the college, and a most potent factor in advertising it, we have been led to publish in full the report of the inspector who visited us last June, that people who read may learn more of what we are doing along these lines. The report *in toto* may be found on another page of this issue.

THE LIFE extends its greeting to the members of the entering class. We welcome you in our midst as brothers, past indications to the contrary, notwithstanding, and as co-workers with us in the community. We are desirous that your college life may be pleasant, and so it will be if you wisely follow the salutary advice which we as your seniors wish to extend. Expect no more than your due, and follow to the letter that excellent precept which will never be more applicable to your life than now: Take care of the present and the future will take care of itself.

Let no premature graduation without honors enforce this truth upon you, for you will learn to love these walls, and will be reluctant to leave them.

WITH the close of summer many a happy camp on the border of lake or river was broken, and long sighs expressive of no mild regret for the halcyon days that were no more, were breathed as trappings were packed for the homeward journey. Now, only the memory can comfort, but happy are they in whom a single thought awakens the pleasant memories of such happy days. The return of autumn brings us back again to old, delightful Amherst. We greet again old faces grown dear, through the associations of other days. In the rush and excitement of the first week we forget the summer gone, but soon again the memories throng, the longings beset, and

"Tears, idle tears, I know not what they mean,

Rise in the heart, and gather to the eyes,
In looking on the happy autumn fields,
And thinking of the days that are no more."

23089

THE football season is on. Soon everywhere throughout the country colleges, academies and high schools will have their teams in the field, and college interest shall seek no other aim than the success of the football team. The knowledge that others are striving to beat us should spur us on to good, hard work. We have a record to make or to break this year. Time will tell, but so will faithful work. The spirit is fine; let's keep it up. It means more to us than ever before that interest shall not lag. It means more to us this year to make an excellent showing, than in the past it has meant to win. We are not confident of victory; far less. Let not a creditable showing be our aim, but rather victory, and never defeat. The manager has arranged a schedule of which we may well be proud. We need all the growth of last year's effort, and what sturdy practice every day for a month can furnish, to meet it. The men seem determined, and Coach Murphy is to be praised for the energetic way in which he goes about his business. The team will respond to such treatment. It's example they're after, and that's what they need. On Saturday we meet Holy Cross at Worcester. One year ago, at the opening of the year, we played them on their own ground, and lost by only a small score. Let's strive to turn the tide.

BUT few improvements have been made round college during the summer, but the outlay of money was surely warranted by the increased facilities afforded, and by the neatness that is at once apparent where improvement has been made. Most noticeable and commendable of these, perhaps, is the new lavatory in the Drill Hall. The need of such a thing has long been apparent, and hearty thanks are due those who succeeded in securing the much-sought-for improvement. The appropriation of one of the rooms in South College for a registrar's office, where the registrar may be consulted certain days of the week, has made it convenient for the students with whom this college official comes in close touch, as well as for the registrar himself. In lieu of an administration building the advantage of locating the offices of the different departments in the administration of college matters in close proximity is at once apparent. In addition to the new cases placed in the museum of the Zoölogical Department last term, two new ones

were put in the recitation room during the summer. The anatomical paper models which were formerly kept in the museum, and which are used constantly in class-room demonstration have been placed in one of the new cases where they may be more readily stowed. The reading room in the North Dormitory has been re-papered, and now has a bright and attractive appearance. It is hoped that other and more extended improvements in those places where the students are accustomed to meet may not be long forthcoming.

IN MEMORY OF

PERCY FLETCHER FELCH,

CLASS OF 1900, MASS. AGRICULTURAL COLLEGE.

Drowned in the Connecticut river, at North Hadley, on July 8, 1900.

Percy F. Felch was born in Ayer, Mass., on March 5, 1878. His father died in July of 1883, and about one year later the widow with her six-year old son moved to Worcester, where they lived until the date of Felch's entrance into college. He received his early education in the public schools of Worcester, in addition spending one year at school at Andover, N. H. He entered the Mass. Agricultural College in the fall of 1893, remaining for one year only. He entered again in the fall of 1897 as a member of the sophomore class, completing his course with that class and being graduated on June 20, 1900. Felch remained in Amherst after graduation until the time of his death, continuing his studies for the degree of Doctor of Philosophy in Entomology.

During his college course Felch was neither an extremely brilliant student nor an active man in the college organizations. His rank in the class was good, while his quiet manner and reticent nature held him apart from his fellow students; he seemed to enjoy being by himself. He made few intimate friends, but made no enemies. He was fond of music, and spent considerable of his time with his cornet. He was a member of the College Choir and of the Glee Club, and the writer of the 1900 Class Song. He was also a member of the Natural History Society, the Y. M. C. A., and the College Shakespearean Society.

RESOLUTIONS OF THE CLASS OF NINETEEN HUNDRED M. A. C.

In memory of our classmate, Percy Fletcher Felch, who was taken from us July 8, 1900.

Whereas, It has pleased our Almighty Lord, in His infinite wisdom, to remove from our midst our beloved classmate, Percy Fletcher Felch; and

Whereas, We keenly feel our mutual loss, and deeply sympathize with his bereaved mother and family, and sincerely mourn his early demise; be it

Resolved, That we, the Class of Nineteen Hundred of the Mass. Agricultural College, do hereby extend to his bereaved mother and family our sincere and heartfelt sympathy. And be it further

Resolved, That a copy of these resolutions be sent to the bereaved family, a copy to the AGGIE LIFE to be published in the first issue, and that another copy be kept and filed with the records of the Class of Nineteen Hundred.

A. C. MONAHAN, President,

E. K. Atkins, Secretary.

Amherst, Mass., July 15, 1900.

IN MEMORY OF
PERCY FLETCHER FELCH,
MASSACHUSETTS AGRICULTURAL COLLEGE, 1900,
DECEASED.

Whereas, It has pleased our Allwise Father, in his infinite love, to take from us our brother, and

Whereas, We very deeply mourn his loss, and sympathize with his bereaved mother in this hour of greatest trial, be it therefore

Resolved, That we, his former club-mates, mourning his early death, feeling deeply that we have lost a faithful and sincere friend, and grieving for the bereaved family, do extend our deepest sympathy to the bereaved mother, and be it further

Resolved, That a copy of the resolutions be sent to the family of our departed brother, that a copy be published in the first issue of AGGIE LIFE, and that a copy be filed with the records of the College Shakespearean Club.

H. BAKER, } Committee
A. C. MONAHAN, } for the
C. T. LESLIE. } Club.

A LOSS TO THE COLLEGE.

((From Amherst Record.))

The Agricultural college had no better friend than the Hon. James S. Grinnell whose death occurred last week. Elected a trustee of the college in 1878, he held office at the time of his death and had served as vice-president of the corporation. He was a regular attendant at the commencement exercises at the college, even in later years when his health was so

broken that he was in need of the services of a constant attendant. He was in constant touch with the work and the needs of the institution, and his wide acquaintance with men of influence throughout the Commonwealth enabled him to enlist their sympathy and secure their aid in behalf of the college when such aid was of especial value. A graduate of Amherst College and in no wise inclined to belittle the benefits derived from a classical education, he was fully alive to the advantages offered by an institution conducted on different lines and it was his earnest desire that these advantages should be more generally understood, more widely appreciated, more fully availed of by the young men of Massachusetts. In scientific agriculture he saw the solution of the problems confronting the farmers, the dairymen, the fruit-growers and the market-gardeners of New England.

HON. W. R. SESSIONS.

To fill the place, so long and so faithfully held by the late James S. Grinnell of Greenfield, the college has been fortunate in securing, by appointment of the Governor, Honorable William R. Sessions as a trustee by appointment of the Massachusetts Agricultural College. Mr. Sessions has long been known to the people of this state in his capacity of Secretary of the State Board of Agriculture. The duties of this office he has faithfully discharged for fourteen years, during which time he has been *ex-officio* a member of the board of trustees of the college, serving as chairman of the Committee on Farm and Horticultural Departments as well as the Committee on Experiment Department.

Mr. Sessions was never graduated from college walls, being a self-made man. He has always deeply regretted the circumstances that prevented him from securing collegiate training, but like many other men who have been deprived of the advantages of a college education he has taken a strong and lively interest in educational institutions and the grand work that they accomplish. By a native intelligence he has worked himself to the front, until he is recognized by all who know him as an able and practical man. Mr. Sessions is a veteran of the war of the Rebellion. During the war he was taken prisoner and confined in Libby prison until exchanged. He has served several terms in both branches of the Massachusetts General

Court, being at one time chairman of the Committee on the Division of Towns. But it is in his connection with the State Board of Agriculture that he is best and most favorably known, and it is probably in this connection that he will be longest remembered.

THE FRATERNITY CONFERENCE.

The fraternity conference, consisting of three delegates, two undergraduates and one alumnus, from each of the college fraternities, met on September 6, for the election of officers and the transaction of business. The following officers were elected: J. H. Chickering, president; R. I. Smith, vice-president; C. E. Gordon, secretary and treasurer. There was a strong sentiment among the members present in favor of continuing the work of the conference. With the end in view of promoting the same harmonious spirit that prevailed a year ago the following resolution was submitted and was adopted by the conference:

"The fraternity conference desires to call the attention of the fraternities in the Massachusetts Agricultural college to the harmony and *esprit-de-corps* that prevailed throughout the college last year, to the notable absence of petty jealousies, and to the athletic successes which the strong public spirit so effectively promoted. It requests their hearty support, and invites suggestions as to methods of accomplishing its purpose of promoting a wholesome college spirit."

JAMES H. CHICKERING, President.

C. E. GORDON, Secretary.

A copy of the resolution was sent to each fraternity.

At a meeting of the conference held December 15, 1898, it was voted that a definite time be recommended during which the fraternities shall mutually agree to pledge no new men, and that this time extend to the opening day of the winter term; and that, if these recommendations be adopted, it shall be the duty of the chairman of the fraternity conference committee to meet the freshman class within three days of the opening of the college year and state this agreement; and that it shall be published in the Y. M. C. A. hand-book, and in the first issue of the year of AGGIE LIFE.

This agreement was sent to the different fraternities, and was favorably received and returned with the following changes: "In the case of a student entering

college after Dec. 1, he shall not be pledged for at least one month. The agreement shall be presented by the president of the senior class instead of the chairman of the conference committee." The changes were accepted and adopted by the conference and the agreement was again submitted for the approval of the fraternities. At a meeting held April 26, 1899 delegates from all the fraternities reported that the recommendations of the committee had been accepted.

INSPECTOR'S REPORT.

With the permission of Captain Anderson we publish the following report of the Assistant Inspector General of the Department of the East, who visited the College last term and inspected troops, equipments, and quarters:

PORTLAND, ME., JUNE 8, 1900.

The Inspector General,

United States Army,

Washington, D. C.

SIR:—I have the honor to submit the following report of an inspection of the military department of the Massachusetts Agricultural College, made at Amherst, Mass., June 1, 1900. The last inspection was made June 9, 1897 by Colonel R. P. Hughes, Inspector General, U. S. Army.

The officer detailed at this institution is Captain John Anderson, U. S. Army, retired, who has been on duty since January 12, 1900.

There are 82 students in the military department, 74 of whom were present at inspection. The review of the four companies and colors in single rank was very good. The military bearing of the cadets was good. The rifles were in good condition but the equipments were in fair condition only. Battalion drill very good. Drill two companies formed in double ranks was very good. No extended order or other drills up to this time; waiting for the hay to be harvested. There is a good shooting gallery.

This school up to the arrival of the present officer, has been without military instruction for nearly two years, and as a consequence the students had lost interest in the work, and many of the students had never had military instruction, so the work had to be started from the beginning, and interest aroused. The work next year will probably show much better results.

The uniform worn by the cadets is dark blue blouse, light blue trousers, and the old style forage cap. In summer white trousers are worn.

Three hours per week are devoted to practical military instruction, which embraces all movements in infantry drill, regulations to include battalion drill, reviews, and guard mounting. Both practical and theoretical instruction has been given in the duty of sentinels. Military drill is obligatory upon all students, although the senior class was excused for this year only.

The number of cadets engaged in small arms target practice was 33. The ranges were 100 and 200 yards, and the results are reported fair. The drill ground is suitable and the facilities for indoor drill are good.

Two hours per week are devoted to the theoretical instruction which consists of lectures, recitations in elements of military science, drill and army regulations, organization and discipline and service manuals. The military professor has delivered four lectures, Waterloo and Gettysburg were the campaigns studied. The text-books used are Wagner's Security and Information, Pettit's Science of War, The Waterloo Campaign of Napoleon, Drill and Army Regulations, and Service Manuals.

The government property at the College consists of 147 Springfield Cadet rifles, caliber 45, with equipments complete, and six non-commissioned officers' swords and belts. In addition there are 76 sabres and belts, and 6 N. C. O. swords and belts belonging to the school. There is no signal property.

There are 2 B. L. field pieces and sights and sight pouches were on hand but no carriages have yet been received. There are also two caissons complete on hand, they are obsolete and unserviceable. There are also 8-inch mortars.

There are no record books belonging to the government, those in use belonging to the College. It is recommended that a complete set of books be furnished which would be receipted for by the College receiving them, and they would then be subject to the disposition of the War Department.

Very respectfully,

(Signed) DAVIS.

Major 1st artillery, Assist. to Inspector General Department of the East.

PROMOTIONS.

MASS. AGR'L COLLEGE,

MILITARY DEP'T,

AMHERST, MASS., September 12, 1900.

Orders No. 3.

With the advice and approval of the President of the College the following promotions and appointments are hereby made, and are to take effect this date:

Cadet Captain, W. C. Dickerman to be Cadet Major.

Cadet 1st Lieutenant, N. D. Whitman to be Cadet Captain, vice Dickerman, promoted.

Cadet 2nd Lieutenant, E. L. Macomber to be Cadet 1st Lieutenant, vice Gordon appointed Battalion Adjutant.

Cadet 2nd Lieutenant, E. S. Gamwell to be Cadet 1st Lieutenant, vice Whitman promoted.

Cadet 1st Sergeant, Thaddeus Graves, Jr. to be Cadet 2nd Lieutenant, vice Gamwell promoted.

Cadet 1st Sergeant, T. Casey to be Cadet 2nd Lieutenant, vice Macomber, promoted.

Cadet Corporal, R. W. Morse to be Cadet Sergeant, vice Graves, promoted.

Cadet Corporal, A. L. Dacy to be Cadet Sergeant, vice Casey, promoted.

Cadet Private, T. F. Cooke to be Cadet Corporal, vice Dacy, promoted.

Cadet Private, W. R. Pierson to be Cadet Corporal, vice Morse promoted.

Cadet 1st Lieutenant, C. E. Gordon is hereby appointed Battalion Adjutant with rank of 1st Lieutenant.

Cadet, J. C. Barry is hereby appointed Quarter Master Sergeant with rank of 1st Lieutenant.

The above named officers and non-commissioned officers will be obeyed and respected accordingly.

JOHN ANDERSON,

CAPT. U. S. A.,

Commandant.

Official, Sept. 12. N. D. Whitman, Adj.

Dartmouth college opened Sept. 13 for its 123d year. The entering class numbers two hundred and fifteen, an increase of thirty-one. The College has adopted a new system of coaching its football men. Each class must support a class team and no man will be taken on the varsity but by selection from the class teams,

THE ENTERING CLASS.

William E. Allen,	Winthrop
Ernest A. Back,	Florence
Ray P. Baker,	Amherst
Hugh L. Barnes,	Curtisville
William W. Copeland,	Townsend
F. Dickinson Couden,	Yarmouthport
John F. Cummings,	Brockton
Edward T. Esip,	Amherst
John J. Fahey,	Pittsfield
Ralph P. Gay,	Stoughton
George A. Graves,	Northampton
John W. Gregg,	South Natick
Clarence H. Griffin,	Winthrop
Adolf F. Haffenreffer,	Jamaica Plain
Charles P. Halligan,	Roslindale
Robert S. Handy,	Cataumet
Sidney B. Haskell,	Southbridge
Fred F. Henshaw,	Templeton
Louis W. Hill,	Greenfield Hill, Conn.
Justin Kelliher,	Brockton
Daniel W. Kirby,	Webster
Clarence W. Lewis,	Melrose Highlands
Howard D. Newton,	Curtisville
Sumner R. Parker,	Brimfield
A. Russell Paul,	Framingham Centre
James A. Pease,	Greenfield Hill, Conn
Arthur L. Peck,	Hartford, Conn
Hervey C. Pierce,	West Millbury
Raymond A. Quigley,	Brockton
R. Raymond Raymouth,	Goshen
Charles H. Richardson,	Boxborough
Arthur Ryan,	Sunderland
Ralph D. Sawin,	Boston
Parkman F. Staples,	Westboro
Clarence L. Thompson,	South Natick
Howard M. White,	Springfield
George A. Witherell,	Warwick
Henry H. Witt,	Belchertown

The following men are taking post graduate work at the college :

Theodore H. Eaton (Harvard 1900) St. Louis, Mo. Horticulture, Agriculture and Entomology.

Chas. L. S. Paull (Brown Univ. 1900) Special work in vegetable Pathology.

George F. Babb (Bates College) Amherst. Special work in Chemistry.

J. B. Knight (M. A. C., '92) Belchertown. Ph. D. in Entomology, Botany and Chemistry.

W. Elmer Hinds (M. A. C., '99) Townsend. Ph. D. Entomology, Botany and Chemistry.

Charles M. Walker (M. A. C., '99) Amherst, Ph. D. in Entomology, Botany and Chemistry.

A. W. Morrill (M. A. C., 1900) Tewksbury, M. S. in Entomology and Botany.

A. C. Monahan (M. A. C., 1900) M. S. in Mathematics.

Athletic Notes.

Once more, after nearly a year's rest we have taken up Foot Ball, beginning where we left off after our last game with Williston. The prospect is to say the least very encouraging to all concerned. At a meeting of the student body on Friday, Sept. 7, a tax was levied on the college in total by a unanimous vote of all the men present and one hundred and thirty dollars in cash was taken at the meeting thus putting the association on a firm footing.

Captain Cook posted the notice for the first practice on Thursday, Sept. 6 and was gratified by the appearance of about twenty men several of them being men from the entering class. Halligan '00 second coach, took charge of the squad and gave them a light practice his aim being to get the men into good condition, physically, as soon as possible. He found some good material among the new men, the most promising being Lewis of Melrose, Halligan of Roslindale, Kelliher of Brockton, and Pierce of Boston. Just what positions these men will try for is not sure but in all probability Halligan will fill the tackle left vacant by Stanley, Lewis will try for a position back of the line, Kelliher and Pierce will make the ends hustle. Among the veteran players who reported were Cooke who will undoubtedly stick to his old position at tackle, Paul will be at centre with Snell and Gamwell as guards, Bodfish at his end, and O'Hearn who has not yet reported but is expected back in a short time. Back of the line Barry, Chickering and Whitman will fill the two halves and quarter while there are several men looking for ex-captain Halligan's position as full, but none who can fill it in every way, Chase '02 being the most promising candidate at present.

On Monday coach Murphy of Brown took charge of the varsity squad and at once put them hard at work giving them a good deal of practice in handling kicks, dropping on the ball and tackling, but also starting signal and formation practice. The men have taken the week's work well, on the whole, only a very few having received any telling knocks. The team is rapidly getting into shape for the season and will easily give the Holy Cross men a run for their money.

Captain Cooke entered college from Sedgwick Institute where he played guard and tackle on the team for two seasons. In his Freshman year he easily made the varsity playing a guard, under the Princeton style of play. He played a strong aggressive game through this season picking up many of the tricks of the trade. In his Sophomore year the team adopted the U. of P. style of guards back, demanding heavy guards and Cook was moved to tackle showing by his improved style the wisdom of the change. During the Junior year he developed so much and proved such a "tower of strength," in the line that he was chosen by the team to lead them through another season of victories. He has taken the position in a good spirit giving a great deal of time and energy to the game and surely deserves success.

Chickering entered College in the fall of ninety-seven with a foot ball record earned in Dover, Mass. Being too light for the Varsity he tried for the class team making an end rush with ease. In his Sophomore year he was tried on the Varsity first as an end rush and later as a half-back proving his right to that position by his speed, strength and grit. Last season he made a try for half-back holding that position for the season. His play has always been marked by nerve and pluck while his speed when once started with the ball made him a sure ground gainer.

Barry, the other half-back, has been on the Varsity through the three years that he has been in College. He filled the position of sub. to the backs during his first year, made the varsity in his second and third. His play is always marked by steadiness and strength making him a valuable man for both offense and defense. This year he is a bit heavier than before but is just as quick as ever.

Whitman has played quarter one year under coach Murphy with honors. He entered from Boston Tech.

where he played on both his class team and the varsity as quarter. Last season he played quarter in a very satisfactory manner being very sure of his pass and always a help to the line men on ends in breaking up formations. This season his head will probably run the plays of the team, and his voice encourage the line men to their work.

Bodfish, made his first appearance with the varsity last season, trying for tackle at first, and later being moved to end, where he surprised all, even himself, by his good work. He is a good heady man, never drawn in before the play is off and a hard sure tackler. His criss-cross play was a sure ground gainer last season and his work this season promises a gain in his play rather than any loss.

Gamwell received his foot ball instruction at the Pittsfield High School where he played center for three seasons. In his Freshman year he was kept from the field by a bad leg which also troubled him during his Sophomore year. Last season he came out for a line position and found no one who could hold him at guard. He is a quiet player, never looking for roses from the side-lines but always up to his work and ready to make a hole of any size, as a ground gainer he is always sure of his distance if called upon when a short gain is necessary.

Snell held down the position of guard last season in a very gratifying way. He entered college from Methuen, Mass., where he played end rush for two years. He was tried first at end and then at guard being a valuable man. He is good natured to a degree and needs frequent working but as a ground gainer he is magnificent and as a defensive player he is strong enough for anything.

Paul came out for the varsity last season, after two years among the Cubans, and proved a strong center. He is a light man for the position but plays with a snap and dash that win him many bright laurels. He is always counted on as a tackler even though he is at the center as he always breaks through and gets down the field ahead of the back.

Bridgforth is a strong player in the line, both on offense and defense. Last season he was played in our hardest games against Holy Cross and Wesleyan proving his right to a foot ball suit and an M.

Besides the veteran varsity men who are tried and true there are a number of men out who are as yet, "dark horses," in the race among these Chase '02, Davison '01, Dwyer '02, Morse '02, Franklin '03, Bowler '03, Belden '02, Cook '03, Brooks '03, Thompson '04, Couden '04 and several others are working well and are sure for the second eleven if not the first.

In addition to the Varsity Schedule, which appears in this issue, a schedule is being arranged for the second team which will play a half dozen games during the month of October. It is necessary that the men who wish to make the varsity squad, either on the First or Second elevens should come out and make the other people work.

The weights of the men making up the veteran varsity squad are :

Cooke 170 lbs.,	Whitman 150 lbs.
Chickering 150 lbs.,	Gamwell 185 lbs.
Barry 155 lbs.,	Snell 185 lbs.
Bodfish 160 lbs.,	Paul 158 lbs.
	Bridgforth 168 lbs.

FOOTBALL SCHEDULE FOR SEASON OF 1900.

Sept. 22. Holy Cross at Worcester.
 Sept. 29. Worcester Academy at Amherst.
 Oct. 6. Norwich University at Amherst.
 Oct. 13. Wesleyan at Middletown.
 Oct. 17. Williams at Williamstown.
 Oct. 20. Trinity at Hartford.
 Oct. 27. Vermont University at Burlington.
 Nov. 3. Storrs at Amherst.
 Nov. 10. Worcester Tech. at Worcester.
 Nov. 17. Amherst on Pratt Field.

College Notes.

—Prof. Howard spent his vacation in Nova Scotia.
 —The entering class numbers thirty-eight
 —R. W. Morse, 1902, spent the summer at Cottage City.
 —Coach Murphy has arrived, and is training the foot ball team.
 —The museum will be open to visitors in the afternoon of every day excepting Sunday from 3-30 to 5-30 P. M.

—The farm department is expecting a new herdsman to arrive about Thursday.

—Prof. Babson won the silver cup in the Country Club golf tournament just ended.

—L. C. Claflin, 1902, spent the summer at Jackson, N. H., as did also H. Paul.

—Saunders who entered with 1900 has returned to college, entering the class of 1902.

—E. McCobb, 1902, has not returned and it is not known whether he will do so or not.

—Perkins and Blake of 1903 will not return to college, leaving twenty-six in that class.

—Raymouth has been elected by the freshmen for president. The class captain is Kelliher.

—A tax of \$1.75 has been levied upon the student body to maintain the reading room this year.

—Lewis, 1902, hopes to arrive about the first of October. He is suffering from nervous collapse.

—J. C. Hall and V. A. Gates, 1902, have moved from their rooms in North College to 97 Pleasant St.

—Thursday's drill was in bayonet exercise. The freshmen are enjoying a course in setting-up exercises.

—President Goodell attended a summer outing of the State Board of Agriculture, held on the fourth, at Marshfield.

—Dwyer, 1902, has taken a position at the Insectary to fill the one left by Chase who is rooming in South College.

—J. H. Belden, 1902, has bought from J. Hall his stock of goods which he will sell from the old stand in North College.

—A new text-book has been adopted for the junior literature course; it is a "History of English Literature" by Halleck.

—The following men were recently voted into the Y. M. C. A.: Knight, J. B., Barnes, Raymouth, Newton, and Copeland.

—Dr. Walker gave a description of his vacation experiences on Sault St. Marie canals to the Grange the other evening.

—J. C. Hall has resigned from his position as business manager of the 1902 *Index*. R. W. Morse has been elected to fill his place. T. Carpenter has been added to the board.

—The rumor that the drill hall was to receive a coat of paint during the summer seems to be still in the rumor stage of development.

—At a mass-meeting held after chapel a tax of three dollars and fifty cents was levied on each member of the college to support the foot-ball team.

—Seniors Gamwell and Rice have taken up their residence in the tower of South College. Monahan, 1900 and his brother, 1903, have moved to Mr. Thompson's.

—The rush which took place on Thursday night was very indecisive, being decided a tie by the upper classmen. Since then several rushes have taken place on the walk from the Drill Hall to South College.

—Professor P. B. Hasbrouck having been called home by the illness of his father, Professor J. E. Olander is conducting recitations in Junior Physics for the present, and A. C. Monahan, '00, is acting as substitute instructor in freshman mathematics.

—The Fruit Growers association held a gathering on the grounds on Wednesday. A large number were present and they enjoyed a good supply of samples. The fruit has not suffered as much as would be supposed on account of the dry season although in some cases it does not fill out satisfactorily. The junior class was invited to assist in the sampling which they did with alacrity.

—A number of the fellows are contemplating joining the Country Club and "lofters" have been digging campus turf during the past week under the strong arms of several zealous amateur enthusiasts. Those seriously considering the matter of joining will do well to take advantage of the present entrance fee which will soon be increased from five to ten dollars. The limit is October 1. Information may be obtained from N. D. Whitman, '01, or from Professor R. S. Lull.

—The department of Entomology has just received a photo-micrographic camera for use in photographing microscopic objects. It is so constructed that the object to be photographed is placed under the microscope and brought in focus just as for ordinary study. The camera is then connected with the eyepiece of the microscope, and by extending the camera to the desired distance a photograph of the size desired may be obtained, the lenses of the microscope taking the

place of the usual camera lens. Tests of the camera thus far have proved very satisfactory, and as the plates are of the sizes used in lantern slides, the production of these showing microscopic objects is made easy.

—A social gathering under the auspices of the college Y. M. C. A. was held in the chapel on Friday night for the purpose of welcoming the freshman class. During the evening President Goodell made some very appropriate remarks concerning the feelings at present existing between the two lower classes that are not exactly "brotherly or gentlemanly." Gordon of the senior class and editor of the LIFE also gave a talk, the subject of which was the college paper. This was followed by a few words from Prof. Mills. Other features had been arranged but the time would not allow their fulfillment. It is suggested that we have more of this sort of thing; we need it for several reasons.

THE FRUIT-GROWERS' MEETING.

The fall field meeting of the Massachusetts Fruit Growers' association was held at the college grounds on Sept. 7 and 8. The program was varied in character but fortunately the weather conditions remained excellent for field work.

Owing to the fact that many of the leading fruit-growers were in the midst of picking and marketing their crop, and therefore unable to be present as they had intended, the number was not as large as had been hoped. Nevertheless, a party of about sixty assembled at the Botanic museum on the afternoon of the 7th for an inspection of the grounds. Quite a number of these were students interested in the study of horticulture from a practical stand point. The afternoon was pleasantly and profitably spent in looking over the cold storage plant, the vineyard and the several orchards. Since the number of varieties grown experimentally here is very large the opportunity for comparison of the most promising sorts is most excellent. This fall it was especially good, since nearly all kinds of fruit have been very productive this year and each one showed at its best. The crop on the college grounds is the largest and on the whole the best in the history of the institution. The visitors expressed themselves as highly pleased at the results obtained by the horticultural department, and evinced much interest in the college as a whole.

In the evening, a meeting was held in the Amherst house parlors, and the question "What shall we do with the Apple Crop?" was thoroughly discussed by those present. This is a topic of much importance to most of our growers, since the apple crop this year is something tremendous and the supply threatens to exceed the demand. The consensus of opinion seemed to be that none but the best fruit should be marketed, thus avoiding a glutting of the market with an inferior product.

Saturday morning barges were secured and the party drove over to the well-known farm of J. W. Clark on Mt. Warner. Here an opportunity was given to inspect a plant managed for profit and in first-class bearing condition. With this trip the meeting came to an end, being voted by all to have been one of the most successful in the annals of the Association.

BOTANICAL PRIZES FOR THE YEAR 1901.

HILLS' PRIZES.

\$20.00 for the best herbarium.

\$10.00 for the second best herbarium.

\$5.00 for the best collection of woods.

In addition to the Hills' prizes there will be offered for 1901:

\$5.00 for the best collection of named lichens.

\$5.00 for the best collection of named pathogenic fungi.

The following points will be taken into consideration in judging the herbarium: Correct naming will count 25 per cent, neatness and completeness of specimens and style of mounting and labeling, 20 per cent, size of herbarium, 15 per cent, order of arrangement of family, genera and species, 10 per cent, native specimens, 20 per cent, number of families represented, 10 per cent.

Exchanges.

The great bulk of our exchanges come from the preparatory schools. It is manifestly unfair to judge these by any standard set for college publications. We cannot expect so much, for the editors must necessarily be more immature, more prone to mere superficialities, and lacking in the breadth of mind which a college training gives. In general, the High

School paper contains the first attempts at literary work and the result is crude and imperfect. It takes time and practice to produce polished work. At the same time such papers are interesting as giving a clue to what may be expected later on. They furnish an opportunity for the student to develop his powers of expression at a time when they are most likely to be latent, supplementing as nothing else can do the compositions and essays of the class-room. In some respects they are even more valuable, since the writer addresses a larger audience and, moreover, one of whose good opinion he is very desirous. We think, therefore, that every High School should have its paper just as it has its athletic teams. Both are indications of enterprise, and none of us can afford to be thought unenterprising in these days of fierce competition.

The three most noticeable points about these preparatory school papers are their covers, locals, and exchange columns. In the matter of covers we freely concede that the High Schools surpass the college journals. We find many very attractive designs, quite often the work of the students too, which is even more to be praised. One of the prettiest covers we have ever seen adorns the May number of the *Pierian* from Naugatuck, Conn., and there are many others which are worthy of commendation. And this is no slight point in a paper's favor. Covers are very much like clothes. A well-dressed man creates at first sight a good impression; so too, an attractive cover serves to hide for a time some very glaring faults. However, to carry the parallel a little further, it is well to remember that such an advantage is only temporary; a well-dressed man who is nothing more, soon keenly disappoints; and the paper with no other merits will do the same. Moreover, just as a plain black suit is always in good taste, irrespective of styles, so the simple black and white of many of the college papers is not to be disparagingly criticised. And in both covers and dress the loud and flashy is always to be avoided.

The locals and school-notes we believe to be one of the stumbling-blocks of the High School papers. We all like a joke. The fact that it is on somebody else makes it all the better. At the same time, there are limits to what should appear in print. Marked personalities, like unduly severe criticism, is

far better omitted. Items like the following, taken at random from an exchange which is no worse in this respect than dozens of others, can do no good, and may cause hard feeling and bitterness: "Jake is so lonely now since Ruth has been having senior vacation;" "Anna Williams says she intends to appear on the stage this season at Vallamont Park;" "Which one is it, Gertie, Foster, Charles or Clarence?"

Such items are not funny, they are only silly. They indicate a sickly sentimentality born of pickles and chewing-gum. Just think, editors, how they must sound to entire strangers among whom your paper goes each month; how will you consider them ten years from now? And do you believe your parents are pleased with any paper that will print such stuff? A little sound common sense along this line is sorely needed.

The exchange column continues to be a much-mooted question. Every editor seems to have his own ideas. So we have space devoted to exchanges ranging from the zero point in a great many up to the limit reached by the *Lake Breeze* which in its last issue devoted eleven columns out of its twenty-eight. We find mere lists of exchanges, comprehensive reviews, and everything between. To secure uniformity of treatment is manifestly impossible and indeed not specially desirable. We do believe, however, that it is only courtesy to our exchanges to make some sort of acknowledgment. Where a criticism is made it ought to be thorough and discriminating enough to mean something. Also, it behooves us to remember that as the exchange column is probably the least interesting of any to the subscribers, it must be kept within limits and not allowed to crowd out items of more general interest.

Alumni.

'74.—It is with much sadness we record the death of Frank S. Smith of Cleveland, Ohio. Mr. Smith was struck by an electric car while crossing the street on June 20th, receiving injuries from which he could not recover, passing away on the 24th.

'77.—Waldo V. Howe has resigned his position as superintendent in the Ann Jaques hospital and purchased for himself a farm. Mr. Howe is intent upon poultry farming. Address, the Moranes, Newburyport.

'82.—Winthrop E. Stone, President of Purdue University, Indiana.

'86.—Richard F. Duncan, sailing on his yacht in the Bermudas, and there practicing medicine.

'86.—D. F. Carpenter has accepted the position of principal of the McGan Normal Institute, Reeds Ferry, New Hampshire.

'87.—Frank B. Carpenter of Richmond, Va., chemist for Virginia and Carolina Chemical Company, was in Amherst recently.

'91.—A. G. Eames, War Correspondent for *Boston Journal* in China.

'91. Louis F. Horner married September 3rd to Miss Frances M. Ashton, will reside at Riven Rock, Montecito, Cal.

'93.—Dr. G. F. Curley married June 20 to Miss Cecillia McGann of Milford residence at No. 10 Congress St., Milford, Mass.

'93.—Fred G. Clark, Holyoke, Mass., Corner Cabot and Lycannie Sts.

'93.—Henry D. Clark, veterinary surgeon at 12 Mechanic St., Fitchburg, Mass.

'93.—Harry J. Hanlon, dairying at West Boylston, Mass.

'93.—Frank H. Henderson, civil engineer at 49 Meridian St., Malden, Mass.

'93.—Franklin S. Hoyt, supervising principal of schools in New Haven, Conn. Address is 91 Alden, Ave.

'93.—A. E. Melendy, farmer at Sterling Junction, Mass.

'93.—John R. Perry, decorator at 8 Bromfield St., Boston, Mass.

'93.—The announcement of the marriage of Luix Antonio Ferreira Tinoco has at last reached us. The marriage took place upon July 28. Tinoco is a sugar cane planter and a partner in a sugar factory. Address Campos. E. do. Rio, Brazil.

Ex.-'94.—John S. Goodell who was shut up in Galveston, Texas, during the flood has been heard from and is safe.

'94.—Claude F. Walker has charge of the Natural History Department of the High School at New Britain, Conn.

'94.—A. J. Morse married to Miss Lillia Davis at the home of the bride on Federal St., Belchertown, August 22, 1900.

'95.—E. A. White has charge of the department of Horticulture, Botany and Floriculture at the Baron DeHirsch Agricultural and Industrial school, Woodbine, New Jersey.

'95.—Dr. F. L. Warren, surgeon at the King's County hospital to which he was called last March.

'96.—S. W. Fletcher, who took his degree of Doctor of Philosophy at Cornell, has been appointed professor of Horticulture and Forestry in the Washington State College. Mr. Fletcher previous to pursuing advanced study was assistant in the Horticultural department of this college, and during the last summer he served as instructor in the summer school of Cornell University.

'96.—The marriage of Clayton Palmer to Miss Jessie Spencer of Eastford, Conn., on July 29th has been announed. The couple will be at their home in Mansfield. Pa., after January first.

'97.—The marriage of Dr. L. L. Cheney to Miss Frances A. Cleary, June 27, has been announced. Dr. Cheney will reside at 921 Woodlawn Avenue, Augusta, Georgia.

Ex.-'98.—W. Quincy Kinsman has enlisted in the regular army for foreign service. He will remain at Fort Wood in New York harbor till October, when he expects to sail for the Philippines and possibly to China.

'Ex.-'98.—T.H. Charmbury has received his degree at the Dental department of the Baltimore Medical college. He is now practicing at Seymour, Conn.

NINETEEN HUNDRED.

E. K. Atkins, North Amherst, Mass.

Howard Baker, veterinary student at U. of P.

Howard Brown, assistant agriculturist at Hatch Experiment station, Amherst, Mass.

M. A. Campbell, Townsend, Mass.

Y. H. Canto, medical student, Columbia University, N. Y. City, N. Y.

H. L. Crane, assistant horticulturist at Plant House, M. A. C.

A. F. Frost, draftsman at Bath Iron Works, Bath, Me.

M. H. Munson is at present staying with his brother in Chicago.

J. E. Halligan, M. A. C., Amherst, Mass.

A. A. Harmon, Veterinary student at U. of P.

E. T. Hull, medical student, Columbia University, New York city, N. Y.

J. W. Kellogg, Amherst, Mass.

M. B. Landers, Sup't Proctor Farms, Proctor, Vt.

J. F. Lewis, with D. C. Potter, landscape gardner, Farmington, Conn.

A. C. Monahan, graduate student, M. A. C., substitute instructor in freshman Mathematics, M. A. C., Amherst, Mass.

A. W. Morrill, graduate student, M. A. C., Amherst, Mass.

G. F. Parmenter, instructor in Chemistry at M. A. C., Amherst, Mass.

F. G. Stanley, student at Tufts medical, College Hill, Boston, Mass.

A. M. West, Holbrook, Mass.

R. D. Gilbert, Gilead, Conn.

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Editorials.

WITH the expansion of our curriculum which will probably accompany the introduction of junior electives, a thing of the future, which we no longer hesitate to speak of as doubtful, and with a broadening of the work in our graduate department, such as shall offer the greatest inducements for graduate study, there will probably be a demand for more definite and complete instruction in forestry than has yet been undertaken at M. A. C. A large number of men, and women too, are being graduated yearly from the forestry departments of other institutions. The work and study are fast assuming a permanent importance. Surely fewer branches of research are more closely related to the interests of the state and country, for the promotion of whose welfare the state colleges and experiment stations were founded, than that which seeks the preservation of our timber land. It is not unsafe to predict that the growing importance of for-

estry as a science will make itself more fully felt in our midst at some not far distant time.

On another page we publish the La Fayette (Ind.) *Courier's* comment upon the appointment of Winthrop Ellsworth Stone, formerly vice-chancellor and professor of chemistry of Purdue university, to the presidency of that institution. The action of the trustees in making this appointment, after a careful consideration of all the attendant circumstances and conditions, and in view of the fact that other able and competent men were ready and willing to take the responsibility of such a prominent position, is a noble tribute to the character, ability, and worth of Mr. Stone. A graduate of the Massachusetts Agricultural College with the class of 1882, Mr. Stone has early attained to a leading position in the educational world. It is a signal honor to any man to be made the president of a growing, popular, and influential institution of learning. Distinguished predecessors in the executive chair of a college, as is the case with the older institutions of

New England, such as Harvard, Yale and Dartmouth, undoubtedly lend an added dignity, to the position of trust and power which the president occupies, but a mention of this fact can in no respect detract from the tribute that has been paid to Mr. Stone. The LIFE thinks that, as a college, we may be proud of the success of our graduate, and that we may in some measure, feel that we have a share in the honor which has been paid to him. The foundation of the manly and successful career which has led to so lofty a position must have been laid, in part at least, during the early days at "Aggie." As a child remembers home and mother so must a graduate carry with him ever the recollection of his *alma mater* and his student life; and as a mother feels a pride in the attainments of her sons so ought the *alma mater* to cherish a strong interest in the successes of her graduates.

MANY of our graduates will be interested to learn that the Natural History Society has been reorganized. We feel sure that could many of the old members speak to us they would strongly commend the effort. The society was founded with the idea of making it a sort of mutual benefit society along the lines of promoting an interest in nature study. The plan now is to adhere to the "old-fashioned" idea of studying the natural sciences by trips afield. The scope of work, however, has been made broad enough to include many subjects not commonly classed with what we at first consider to be embraced in the term "natural history," and this provision has been made with the hope that more of the fellows will ally themselves with the organization so that it may become a flourishing society. During the winter months the trips afield must be discontinued but it is hoped that interest enough may be aroused to insure interesting meetings at which papers prepared by the students on different lines of individual research may be read and discussed. It is also hoped that the society may in addition to these lines of work provide a series of lectures upon live and interesting subjects to be given at regular intervals during the winter term. The society has been duly organized by the election of officers and the enrollment of about fifteen members. A very interesting meeting was held Friday evening, October 5th, Professors Lull, Stone, and Fernald were present and each had an encouraging word. The students

are urged to attend the next meeting which will be held next Friday evening, October 12th. Some matters left over from the last meeting will be discussed as also the plan of having a trip afield some time in the near future. The field for work and study along the lines of botany and geology in the Connecticut valley is not to be surpassed in this state. The valley is especially rich in its flora, and the studies in geological formation and paleontological vestiges are exceedingly interesting and instructive.

DR. WINTHROP E. STONE.

Dr. Winthrop E. Stone was born in 1862, in the town of Chesterfield, N. H. His early boyhood was spent in his native place where he enjoyed the usual school facilities. Mr. Stone, the father, that his sons might enjoy better school privileges, moved to Amherst, Mass., in 1874. Here Winthrop received further public schooling for four years. In 1878 he entered the Massachusetts Agricultural College, graduating four years later with honors, and with the degree of Bachelor of Science.

In 1882, immediately after graduation, he went to Mountainville, N. Y. entering upon the work of agricultural chemistry in a private experiment station. At the end of two years he returned to Amherst and entered the Hatch Experiment Station under Dr. Goessmann. In 1886, he took his degree of Bachelor of Science from Boston University and went abroad to continue advanced work in chemistry and botany. He gradually gave up his study of botany, however, and devoted his whole time to chemistry. He became a member of the university at Göttingen, studying under the direction of V. Meyer, Tollens, Berthold, and their colleagues. In 1888, he was graduated with the degree of Ph. D., and immediately upon his return to the United States, was appointed chemist in the experiment station of the University of Tennessee at Knoxville. In September, 1889, he was called to fill the chair of Chemistry at Purdue University, Lafayette, Ind.

In his work at Purdue, Dr. Stone has greatly developed his department besides making various researches, the results of which have been published in scientific journals both in this country and abroad. In 1892, he was made vice-president by appointment of the trustees, since which time his services have

been absorbed in a constantly increasing degree in administering the affairs of the college. In late years he became President Smart's chief assistant, being frequently called upon to take charge of matters of greatest importance. During the greater part of the two years of President Smart's failing health the entire burden of the university rested upon him. In July, 1900, he was appointed by the trustees to the presidency of the institution.

Dr. Stone was married June 24th, 1889, at Knoxville, Tenn., to Miss Victoria Heitmüller of Göttingen, Germany. Previous to her marriage Miss Heitmüller had taught at Andover Seminary. Dr. Stone is a member of numerous learned and scientific societies. He is a member of the State Teachers' association, was president of the State College association for 1899, and has served frequently as a member of the State Board of education of which he now becomes an *ex-officio* member. He was for three years president of the West Side school board. Mrs. Stone is very active in the social life of the college community, of which she is a very popular member.

(From the Lafayette Daily Courier.)

The *Courier* need not say that it is gratified that Dr. W. E. Stone has been chosen for the presidency of Purdue university. That it should feel so is well understood in this community. This paper has a belief in the wisdom of the decision of the board of trustees and an abiding faith in the capabilities of the man to whom such signal honor has been given. Commenting on the board's decision in March to delay the choice until there might be a thorough investigation of the qualifications of candidates it was said in these columns:

"If the compliment of choice shall later be paid to Professor Stone, as the *Courier* believes it ought to be, it will be all the greater for careful weighing of every requirement by the trustees."

The greater compliment has come. That it was deserved is evidenced by the fact that there was unanimous choice after months of consistent investigation and cautious consideration of a list of nearly a half hundred names, in connection with the appointment. The promotion is a great one and carries with it many responsibilities, but it comes as the reward of

merit, and is an encouragement to such devotion to duty as has characterized Professor Stone's connection with the university. He brings to the presidency of Purdue a close knowledge of the workings of the institution, an acquaintance with its greatest needs, a vigorous and upright manhood, a knowledge of necessary discipline, and an educational wisdom all-sufficient for the task. In less important positions Dr. Stone has been an enthusiast for Purdue. As its president it is confidently assumed that his efforts will be enlarged to the full limit. He has been the acting president since Dr. Smart's death, and prior to that time there devolved upon him many of the duties of the higher position. That there has been intelligent discharge of duty is shown by the fact that Purdue has continued to grow in reputation and in attendance. The university will keep on growing, and Dr. Stone will grow with it, and for it. Congratulations are extended to the new president, but more especially does the *Courier* desire to congratulate the university, its trustees, faculty, instructors, and students, and the general public on a selection that means continued educational prosperity and growth.

GEORGE H. TUCKER.

Not having received any authentic data until a few days ago we have been unable heretofore to publish anything but a short notice of the decease of Mr. Tucker. We are pleased, however, even at this late date, to publish a few facts concerning his life.

Mr. George H. Tucker was graduated from the Massachusetts Agricultural College with the class of '71. After leaving college he went to the oil fields of Pennsylvania and there engaged in the business of sinking oil wells, but after three years, not finding the undertaking a profitable one, he joined the United States Army in Dakota. He remained in the service for seven years. With a change of administration he returned to Pennsylvania, taking up farming and surveying. Later he became city engineer for the city of Corry. A year ago he suffered a severe attack of hemorrhage of the bowels. He was not able to rally and passed away October 1st, 1899.

Mr. Tucker was married, May 15th, 1899, to Mrs. Ella Kew, formerly Miss Ella Tubbs of Titusville, Penn. He left one child, Catherine Viola, born March 15th, 1891.

College Notes.

—Allen and Halligan have entered the Sophomore class.

—President Goodell spent three or four days last week in Boston.

—Lewis, 1902, has returned to College, being late on account of illness.

—The battalion has been having extended order drill several times of late.

—Eight Juniors and two Freshmen attended the County fair at Greenfield.

—Hereafter the sophomore German will be held in the Veterinary laboratory building.

—E. McCobb, 1902, has returned to College after a prolonged vacation of about three weeks.

—Professor Babson has taken charge of the department of declamation in all four classes of the College.

—Coach Murphy left Wednesday morning for the West. The foot-ball teams practiced at seven in the morning.

—The reading-room periodicals and newspapers were sold at auction in the chapel Wednesday evening.

—A meeting was held in the Zoölogical room on Friday evening for the purpose of reorganizing the Natural History Society.

—Mrs. L. E. Sanderson is training the College choir and glee club. The freshman class has swelled the number of voices to about 15.

—At last the Military Department has taken into hand the students' system of illuminating their rooms by means of numerous wire taps and extensions.

—The Rev. Mr. Day of the Unity church was installed Friday afternoon, a reception being held from 8 to 10, at which several of the students ushered.

—The President is gathering to the College library the histories of all the towns and cities in the State that have their histories published. In this collection it is apparent that we will find the history of our Commonwealth. Such a history will be found invaluable in years to come.

—The burning of the mountain house on Mt. Tom, Monday evening, was distinctly visible from Amherst. The fire when at its height made a most beautiful sight.

—The Seniors have chosen the following officers for the ensuing term: Pres't, E. S. Gamwell; vice-president, E. L. Macomber; sec'y and treas., J. H. Chickering.

—There is some rumor of organizing a military surveillance over the College grounds, the commissioned officers acting in turn one day of every week as officers of the day.

—The foot-ball field has been surveyed and the goal-post at the dormitory end has been changed to its correct position. It was somewhat over its own width too far to the east.

—Gates and Hall, 1902, have been obliged to cultivate a liking for the dormitory once more and are rooming in number 8 South College, Sawin, 1904, having moved to number 15.

—The democrats held a rousing meeting in the chapel the other night and in spite of the strong religious tendencies they managed to discuss with strength the arguments of their party.

—The following officers have been elected by the Junior class: Pres't, Dacy; vice pres't, Dellea; sec'y and treas., Chase; class captain, Paul; historian, Knight, and sergeant-at-arms, Church.

—The class of 1903 have elected the following officers: Pres't, Snell; vice pres't, Bacon; sec'y and treas., Jones; sergeant-at-arms, Brooks; foot-ball captain, Snell; rope-pull and class captain, Barrus.

—Of the two prizes offered for college floats, in the coaching parade, the first was awarded to the Experiment Station department and the second to the Farm department. They consisted of ten and five dollars.

—The Christian Endeavor society of the first Congregational church tendered a reception to the entering classes of the colleges. A musical program was rendered which helped to make a very enjoyable evening.

—The M. A. C. Athletic Board has elected the following officers: President, Dr. J. B. Paige; vice-president, Prof. W. P. Brooks; member on the Board, executive Prof. R. S. Lull; auditor, Prof. S. F. Howard.

—The drill hall is undergoing some needed improvements. The recitation-room will be steam heated, thus putting an end to those recesses caused by the stove failing to work. A lavatory has also been added.

—The freshman class has elected the following officers: Pres't. Raymoth; vice pres't, Staples; sec'y and treas., Griffin; class captain, Kelliher; football captain, Pierce; rope-pull captain, Lewis; historian, Witherell, and sergeant-at-arms, Gay.

—The Department of Vegetable Pathology and Physiology of the Hatch Experiment station will soon issue a bulletin giving the results of several years experiments with the lettuce plant. The portion treating with the effect of atmospheric electricity on the growth of the plant will be particularly interesting.

—The cadet band has been organized as follows: Allen, '03, baritone; Handy, '04, cymbals; Henry, '01, second alto; Kirby, '04, E flat bass; Parker, '04, second B flat cornet; Pease, '04, solo B flat cornet; Peck, '04, first alto; Pierce, '04, B flat bass; Robertson, '03, second tenor; Smith, '02, solo B flat cornet; Tottingham, '03, first tenor; Webster, '03, snare drum; West, '02, piccolo; West, M. H., '03, first B flat cornet; Witherell, bass drum. Mr. Wm. Day of Greenfield will act as instructor. The expense of music, and of instruction, which will consist of a two hour lesson once every week, will be borne by the College.

FOURTEENTH ANNUAL REUNION AND BANQUET OF THE MASSACHUSETTS AGRICULTURAL COLLEGE CLUB OF NEW YORK.

At the St. Denis Hotel, Dec. 8th, 1899, the Club held one of its largest reunions.

The toastmaster was Charles E. Beach, '82, president of the Club.

The guests were President Goodell, Prof. Henry W. Parker, Prof. William H. Brewer of Yale, William Ives Washburn, Esq., Amherst '76, Prof. A. C. Washburne, and Prof. Herman Babson.

The toastmaster was very felicitous in his introductory remarks. The only farmer present, he enjoyed himself greatly making fun of the pseudo agriculturists before him.

President Goodell spoke for the College, and also read his essay on "How the pay of the Regiment was carried to New Orleans," carrying us back to the days when we used to listen to his lectures on history by this stirring account of his practical experience in war time.

Prof. Parker made a short address in his usual effective manner.

Prof. William H. Brewer of Yale responded in an exceedingly attractive talk on the changes which had occurred in agricultural education in this country. He said that he was probably the first teacher of agriculture in any institution here, and specially noted the great attention now paid to nature studies, and the annual hegira of the people from the cities to the mountains, thus getting close to nature and studying the places which the Ancients used to call the "abode of demons," claiming that these changes in studies and customs were due in part to the forces which had prompted the great extension of college work in the natural and mechanical sciences.

Mr. William Ives Washburn (Amherst '76) was introduced as a representative of Amherst College Alumni, having been president of the New York Association within a few years. Mr. Washburn spoke at length in a most cordial manner, stating how he had known of the foundation and growth of our Alma Mater, as in his boyhood days he had lived in the town of Amherst; he alluded humorously and picturesquely to the somewhat forced relations which had existed in times past, between the students of the two institutions, and called attention to the fact that the students of both colleges to-day knew almost nothing of the workings and equipment of their sister college, which he much deplored. He spoke seriously of the duties of all college men in promoting morality and education, and thanked the Club for the courtesy shown him as a guest.

Prof. Herman Babson of the College, also a graduate of Amherst, was enthusiastic in noting the splendid work being done by our Alma Mater; that the College was filling a place in teaching the so-called natural sciences, which no other institution in the country that he knew of, occupied; a loyal son of Amherst College, it was his pleasure and duty to bear tribute to the value and merit of our Alma Mater.

Prof. A. C. Washburne, formerly of the College

and now of the Actuarial Department of the Metropolitan Life Insurance Company, made a brief address.

Prof. William P. Brooks, '75, spoke with great force and clearness of the undergraduate life and of how things were shaping into better conditions throughout the College.

Short addresses were made by other members of the Club.

The Fifteenth Annual Banquet will take place at the Hotel St. Denis, Broadway and 11th St., Friday evening, December 7th, at 6-30 o'clock. As usual members of the faculty will be present and it is hoped to obtain besides President Goodell, Ex-President Stockbridge and Prof. Goessmann. It is also planned to have as a chief guest Winthrop Ellsworth Stone, Ph. D., '82, who has recently been elected president of the Purdue University in Indiana. He is the first alumnus to be promoted to such an important position, the University being a very strong institution of learning in the middle West. We also expect to have representatives of Amherst, Williams, Lafayette, Pennsylvania and a Cornell alumni.

There are to be no long speeches. The dinner will be purely informal. The best of fellowship will prevail and we will not only renew our youth in reminiscences of the past but we will be enabled to acquaint the alumni of other institutions that there is such a college as our Alma Mater.

The dinner tickets are \$3.00. No one may become a member of the Club unless he shall attend a reunion of the same.

If attention is paid to the list of the members of the Club, it will be seen that the most enthusiastic supporters are the older alumni. It is highly desirable that the younger alumni who are coming into New York and its vicinity and actively engaging in business and professional work should be enrolled amongst the members of the Club.

Let all loyal sons of the M. A. C. attend! If the older members can come from Connecticut and Massachusetts, certainly the younger members in and about New York should put in an appearance.

All remittances should be addressed to the Treasurer, Mr. A. L. Fowler, 119 Mercer St., New York City, on or before the 2nd of December. Please see Article III, Sec. 2, Article IV, Sec. 2 and Article VIII, Sec. 4 of the Constitution.

CONSTITUTION.

ARTICLE I. NAME.

This Club shall be known as the MASSACHUSETTS AGRICULTURAL COLLEGE CLUB of New York.

ARTICLE II. OBJECTS.

The objects of this Club shall be:

1. The promotion of agriculture.
2. The advancement of the Massachusetts Agricultural College.
3. The uniting of its members for mutual improvement and social fellowship.

ARTICLE III. MEMBERSHIP.

Section 1. There shall be two classes of members: (a) active members; (b) honorary members.

Sec. 2. Active membership is open to all former students of the Massachusetts Agricultural College, and to all who have been or are connected with its Boards of instruction and government. The names of all such who shall attend any Banquet as a guest of the Club, or by paying the Banquet fee, shall be placed on the active membership roll.

Sec. 3. Honorary membership may be conferred by a unanimous vote of the Executive Committee.

Sec. 4. The Club by a two-thirds vote at the annual meeting may expel a member.

Sec. 5. Any member may resign by sending his letter of resignation to the Secretary, provided he is not in arrears to the Club.

ARTICLE IV. DUES.

Sec. 1. Honorary members shall be exempt from the payment of admission fee and dues, and shall enjoy all the privileges of active members, except that they shall not vote nor hold office; nor shall they have any right or title to, nor interest in the property or assets of the Club.

Sec. 2. The banquet fee shall be three dollars, and the Executive Committee shall reserve plates for those who pay said fee, five days or more before the banquet, to the Secretary-Treasurer.

ARTICLE V. OFFICERS.

Sec. 1. The officers of this Club shall be a President, a Vice-President, Second and Third Vice-Presidents, a Secretary-Treasurer, a Choragus and an Historian, which collectively shall constitute the Ex-

ecutive Committee of the Club and shall be elected by ballot at the annual meeting to serve from the adjournment of said meeting to the adjournment of the next.

ARTICLE VI. DUTIES OF OFFICERS.

Sec. 1. The President shall preside at all meetings of the Club and Executive Committee.

Sec. 2. In the absence of the President, the Vice-Presidents shall perform his duties in the order of their seniority.

Sec. 3. The Secretary-Treasurer shall act as the Correspondent of the Club, and handle the funds subject to the order of the Executive Committee.

Sec. 4. The Choragus shall have supervision of music at the Club reunions.

Sec. 5. The Historian shall record the meetings of the Club and the Histories of its members.

ARTICLE VII. POWERS OF THE EXECUTIVE COMMITTEE.

The Executive Committee shall have power :

1. To fill any vacancy among the officers by a majority vote of those present at any regular meeting.

2. To make purchases and contracts for the Club, but it shall have no power, unless specially authorized, to render the Club or any member thereof liable for any debt beyond the amount of money which shall at the time of contracting such debt be in the treasury, and not needed for the discharge of prior debts and liabilities.

3. To invite guests to the meetings of the Club, and transact any other business which does not conflict with this constitution.

ARTICLE VIII. MEETINGS.

Sec. 1. The Annual Meeting and Banquet of the Club shall be held in December, at a time and place to be appointed by the Executive Committee.

Sec. 2. Special Meetings and Banquets of the Club may be called by the Executive Committee for the promotion of its objects.

Sec. 3. Meetings of Executive Committee shall be held whenever needed. Three members shall constitute a quorum.

Sec. 4. No assessments or collections shall be imposed or made at any meeting of the Club.

ARTICLES IX. AMENDMENTS.

Sec. 1. This Constitution may be amended by two-thirds vote of the Club at any annual meeting.

ARTICLE X. PROPERTY.

Sec. 1. The legal title to all property, effects and assets of the Club shall be vested in the Executive Committee.

Sec. 2. The Corporate Seal of the Club shall be.

Athletic Notes.

AGGIE, 0 ; HOLY CROSS, 6.

On Sept. 22 Aggie played her first game with Holy Cross on the latter's field. The result was a victory for the home team, but the showing of our boys was such that we feel much encouraged with our team. Being the first game, both teams were a bit green and the play lacked in snap and dash. The Holy Cross men were inclined to dirty play, and were penalized several times, one man being disqualified by the umpire.

Aggie had the ball her full share of the time keeping it in the Worcester territory all of the second half. She was able to gain through the line and around the ends, but was weak at critical moments. Lack of generalship was also a feature of her play.

Holy Cross made gains through our line and around one end, but could not get round Bodfish. The features of the game were the defensive work of Bodfish and Snell and the work of O. Sullivan at end. The line-up :

AGGIE.	HOLY CROSS.
Dellea, Kelliher. r. e.	r. e., O. Sullivan
Cooke, r. t.	r. t., O'Rourke
Gamwell, r. g.	r. g., Toohig
Paul, c.	c., MacCabe
Snell, l. g.	l. g., Conner
Halligan, l. t.	l. t., Grady
Bodfish, l. e.	l. e., Rice
Whitman, q. b.	q. b., O'Hallihan
Barry, r. h. b.	r. h. b., Sullivan
Chickering, l. h. b.	l. h. b., Murphy
Halligan, f. b.	f. b., Reilly

Referee—Mercer. Umpire—Rice. Linesmen—Belden, Shay. Timers—Call, Gates. Touchdown—Murphy. Goal from touchdown—Reilly. Time—20 and 15 minute halves.

AGGIE, 12 ; WORCESTER ACADEMY, 0.

On Sept. 29, Aggie defeated the Worcester Academy by the above score. The teams were about equal in weight, the Worcester team having the advantage in the rush line while Aggie was a bit heavier back of the line.

This game was a surprising one, showing up the strong and weak points of our team very plainly. It proved that we were stronger on defense than before, and also proved that our backs are not as strong in interference as before.

Cooke won the toss and had Worcester kick-off the first half. Aggie immediately lost the ball by a fumble. Worcester was held for downs but recovered the ball and rushed to our three-yard line. Then our team held and from there rushed the ball the length of the field for a touchdown by Snell, which was the only score for the first half. Barry kicked the goal.

Worcester kicked off in the second half. Aggie held for downs and rushed the ball down the field, scoring in about five minutes of play. Barry again kicked the goal. For the rest of the time the ball stayed in the center of the field, a few kicks being exchanged but nothing decisive being done.

The features of the game were the defensive work of the Aggie team and the running of J. H. Chickering who was easily the star. The line-up:

AGGIE.	WORCESTER ACADEMY.
Dellea, r. e.	r. e., Kruse
Cooke, r. t.	r. t., Davis
Gamwell, Bridgeforth, r. g.	r. g., Sheehan
Paul, c.	c., Reboli
Snell, l. g.	l. g., Perkins
Halligan, l. t.	l. t., Hall
Bodfish, Kelliher, l. t.	l. t., Phillips
Whitman, q. b.	q. b., Marshall
Barry, r. h. b.	r. h. b., Edwards
Chickering, l. h. b.	l. h. b., Dignomtry
Lewis, f. b.	f. b., Chickering
Touchdowns—Snell 2. Goals from touchdowns—Barry 2.	
Referee—Halligan. Umpire—Emory. Timer—Nelson.	
Linesmen—Gates, Campbell. Time—two 15 minute halves.	

AGGIE SCRUB. 14; WESLEYAN ACADEMY, 0.

On Monday, Oct. 1, the Aggie Scrub played a game with Wesleyan Academy at Wilbraham, winning 14 to 0. The Academy team was heavier but lacked training. The scrub had an easy game winning easily and holding the Academy boys at all points.

Belden, captain of the scrub, was the star of the aggregation. The line-up.

AGGIE.	WESLEYAN.
Kelliher, l. e.	r. e., Sikes
Dawson, l. t.	r. t., McCaw
Pierson, l. g.	r. g., Wheaton

Bridgeforth, c.	c., Reynolds
Barnes, r. g.	l. g., Kimball
Jones, r. t.	l. t., Russell
Pierce, r. e.	l. e., La Forge
Dellea, q. b.	q. b., Kennedy, Wilcox
Belden, l. h. b.	r. h. b., Lansing
Bowler, r. h. b.	l. h. b., Wilkins, Luce
Chase, f. b.	f. b., Coote

Score—Aggie 14, Wesleyan 0. Touchdowns—Dawson, Chase. Goals from touchdowns—Pierson 2. Referee—H. B. Davis. Umpire—Gates. Linesmen—Campbell, Holmes. Time—15 and 10 minute halves.

AGGIE, 50; NORWICH, 0.

Last Saturday, the 6th, Aggie defeated Norwich University by an overwhelming score. In spite of the heat the game was fast, six touchdowns being scored in the first half. Norwich was weak on defense and at no time was able to hold for downs. Her play was characterized by the weakness of the line and the strength of her backs, especially the fullback Tuck, who did some very pretty tackling.

Cooke won the toss and defended the south goal. Norwich kicked off and Whitman carried the ball to the center of the field. By means of end runs and line plunges the ball was carried over the line for a touchdown after four minutes of play. The rest of the half was a mere repetition, five more touchdowns being made and three goals kicked from them.

Aggie kicked off, the second half, and held for downs getting the ball on Norwich's twenty-five yard line; from there the ball was rushed over for a touchdown in about three minutes of play. Two more touchdowns and one goal ended the scoring and the game.

The features of the game were the brilliant work of Chickering for Aggie and the tackling of Tuck for Norwich.

AGGIE.	NORWICH.
Dellea, McCobb. Pierce, l. e.	r. e., Hazen
Halligan, l. t.	r. t., Fuller
Pierson, Gamwell, l. g.	r. g., Holden
Paul, Bridgeforth, c.	c., Smith
Snell, r. g.	l. g., Carr
Cooke, r. t.	l. t., Chamberlain
Bodfish, Kelleher, r. e.	l. e., Wheatley
Whitman, Dellea, q. b.	q. b., Strong
Chickering, l. h. b.	r. h. b., Burr
Barry, r. h. b.	l. h. b., Watson
Lewis, f. b.	f. b., Tuck

Score—Aggie 50, Norwich 0. Umpire—Ball of Norwich. Referee—Halligan, M. A. C. Linesmen—Gates, M. A. C., Metzger, Norwich. Touchdowns—Chickering 4, Snell, Halligan, Barry, Lewis and Cooke. Goals—Barry 5. Time—15 and 20 minute halves.

ALMUS PATER.

We sing of Alma Mater's care,
 Of loyal sons, and daughters fair,
 Of how we love that matron stern,
 And all her precepts strive to learn;
 But Almus Pater, where is he?
 Was Almus Pater lost at sea?
 Or eaten on some savage isle
 Where he had gone a little while,
 Like poor old Rip, to escape the tongue
 That Alma Mater ceaseless swung?
 Or did he die a natural death,
 Simply forgetting to draw his breath?
 Or, as the facts would seem to point,
 Are he and Alma out of joint?
 Do they in exile live apart,
 Who should be joined hand and heart?

Of Almus Pater we never hear,
 He never seems to interfere
 In the management of frisky youth.
 He never enters the halls of Truth,
 And like the "Old Woman in the Shoe,"
 Poor Alma has it all to do.
 And truly 'tis a wondrous task,
 If you are skeptic please to ask,
 If always you have kept the law.
 Then you're the first I ever saw.
 Now I propose, ye loyal sons,
 That straightway we secure the funds
 To start a search for Almus Pater
 To make him work for Alma Mater.

—C. L. F. P.

LIBRARY NOTES.

A complete set of Robert Louis Stevenson's work has lately been added to the library. You are all acquainted with this author, he needs no introduction and his works are familiar to you all. They are instructive as well as amusing, and while passing away a few idle hours in company with one of Stevenson's books the reader is unconsciously adding new words to his vocabulary and new ideas to his thoughts. A wide range of thought is included in these volumes and everyone can find something suited to his taste. Upon the beauty and style of writing no comment is necessary.

"In a Walled Garden," by Bessie Rayner Belloc. In company with this authoress we are introduced to many of the prominent and world renowned men and women of Europe; with her we visit Rome, Paris and other historical cities, battles are viewed and battle-

fields, now peaceful and quiet, wandered over. Scenes are described in glowing terms well adapted to the subjects discussed, people are almost made to stand before the reader and their correspondence gives us an insight into their character. The fact that many of the subjects discussed are new for a woman to attempt makes the work all the more praise-worthy.

"Bird Studies with a Camera," by Frank M. Chapman. To study birds, their form, size and habits by means of a camera is practically a new idea and as it is new no one can be considered as an authority upon the subject. To say that the author of this book has been successful in his venture is to say the least that can be said. To obtain a good study of the bird, the snapshot reproduction is usually enlarged to three times the original size. This brings out the minute details very clearly. There is an uncertainty about such a study that makes it exceedingly interesting and good results can be obtained without loss of life. The book is well written and fully illustrated.

"From North Pole to Equator," Studies of Wild Life and Scenes in many lands by Alfred E. Brehm. The author inherited his love for nature from his father who was an accomplished ornithologist and at an early age the boy was accustomed to rambling through the woods with his father learning the meanings of the various sounds. While he was yet a young man he began his scientific explorations; he visited Africa, Lapland, Spain and Abyssinia. The results of the expeditions were given to the public in the form of lectures written in German. These have been collected and translated to make up this book. Of the separate lectures "The Migration of the Mammals" is exceptionally good while the one on "Apes and Monkeys" I do not think always according to the best authorities of this time. Incidents of travel are cited, pictures are painted and descriptions given which make it very interesting and exceedingly instructive. The book is fully illustrated but all the illustrations are not true to nature.

"Education in the United States." This consists of a series of monographs prepared for the United States exhibit at the Paris Exposition. It includes everything relative to education from the time when the government first took control of the matter, giving statistics of what the government has accomplished,

through the establishment of our great American universities and even discussing the Literature of Education. Each individual subject is treated in an exhaustive manner by some of the noted leaders in our great institutions. As each subject is treated by a different person the style of each will necessarily differ slightly; but as each writer writes all there is to be written on his subject the book as a whole is very complete. It is published in two volumes.

Intercollegiate.

Columbia has added a school of Diplomacy to her curriculum.

Ten students at Yale are taking the newly established courses of the College of Forestry.

The Boston College eleven has been obliged to disband without playing a game, owing to financial troubles.

Smith college celebrated its twenty-fifth anniversary last week with elaborate ceremonies. It is the oldest, largest and one of the best known of the women's colleges.

At the University of Missouri, the technical courses require an equal amount of shop-work from both sexes. It is said that the co-eds. soon become very proficient.

The entrance requirements at West Point have been very materially raised. In the past they have been low, though the subsequent courses are extremely hard.

The entering class of the University of Vermont numbers 81 of whom 12 are co-eds. This is a slight increase over former years. Military drill has been temporarily suspended.

An interesting custom exists at Harvard. Early in the fall term each upper classman selects a dozen or more Freshmen whom he entertains and acts as sponsor for, during the remainder of the year.

The Engineering Division of the Junior class of M. I. T. has been engaged recently in laying out an imaginary railway across the town of Wellesley. It is said that the obstacles causing the greatest delay in the work were encountered while passing the Wellesley College campus.

The students of Amherst college by a vote of 296 to 33 recently decided to abolish the cane rush between the Sophomores and Freshmen. In the last rush one of the Freshmen was seriously injured. Something less dangerous will be substituted, but what this will be has not yet been determined.

Alumni.

'75.—Class president, Mr. A. A. Southwick, Hospital for the Insane, Taunton; secretary, Dr. Madison Bunker, 17 Park St., Newton.

Ex-'75.—William S. Lyon is General Superintendent of the Census takers for the Division of Agriculture in California, Arizona, Florida and the Gulf States.

'77.—George E. Nye is with Swift & Co., Chicago. Residence at No. 420 East 42d St.

'78.—Charles F. Coburn, city treasurer and collector of taxes for the city of Lowell, has resigned his position because of ill health. The city council, after accepting Mr Coburn's resignation, expressed thanks for faithful services, and earnestly wished his restoration to health and continued activity in the community.

'82.—Class president, Dr. James B. Paige, Amherst; class secretary, George D. Howe, North Hadley. Prof. C. S. Plumb, of Purdue University, spent the summer traveling in England and Europe.

'83.—E. A. Bishop, Superintendent of the Agricultural department at Talledega college was thrown from his horse early in the spring and sustained serious injuries. He came North as soon as he was able to travel and underwent a successful operation in Boston. The operation was performed by Dr. J. E. Goldthwait, '85. Mr. Bishop returned to his duties in September, much improved in health.

'83.—D. O. Nourse, Professor of Agriculture at the Virginia Polytechnic Institute spent the month of July and August with friends in the North. He visited the college the latter part of July. Prof. Nourse has recently completed a model barn in connection with his department. A full description of the structure is found in a recent bulletin of the Virginia station.

'85.—George H. Barker is assistant surgeon on the Monongahela.

'86.—Richard F. Duncan, Physician at 5 Norwich Ave., Providence, R. I.

'92.—George B. Willard married to Miss Alice W. Barton of Waltham, Sept. 4.

NINETY-THREE.

E. C. Howard married Aug. 22, to Miss Ella Kenedy of Woburn. The couple will reside at New Hartford, Conn.

Class president, Dr. Charles A. Goodrich, Hartford, Conn.; class secretary, Fred A. Smith, Lynn. The class of '93 held a reunion in Amherst on June 18, 1900. The entering class numbered forty-two, but only twenty-one were graduated. Six of their number have passed away; thirteen are married. The class-cup is held by R. Blood Melendy, and was presented at the last reunion. The next reunion of the class will be held in 1903.

Baker, Joseph. Dairying, Riverside Farm. New Boston, Conn.

Bartlett, Fred G. Sexton Forestdale cemetery, corner Cabot and Sycamore Sts. Holyoke, Mass.

Clark, Henry D. Veterinary Surgeon, 12 Mechanic St., Fitchburg, Mass.

Curley, Geo. F. Physician and Surgeon, 234 Main St., Milford.

Davis, Herbert C. Postal Clerk, R. R., 99 Trinity Ave., Atlanta, Ga.

Goodrich, Charles A. Physician and Surgeon, 5 Haynes St., Hartford, Conn.

Harlow, Francis T. Farming, Marshfield, Box 106.

Harlow, Henry J. Dairying, West Boylston.

Hawkes, Ernest A. Christian Crusader, corner 4th & Broad Sts., Richmond, Va.

Henderson, Frank H. Civil Engineer, 49 Meridian St., Malden.

Howard, Edwin C. Principal schools, New Hartford, Conn.

Hoyt, Franklin S. Supervising principal schools, 91 Alden Ave., New Haven, Conn.

Lehnret, Eugene A. Veterinary Surgeon, 86 Church St., Clinton.

Melendy, Alphonso E. Farming, Sterling Junction.

Perry, John R. Interior Decorator, 8 Bosworth St., Boston.

Smith, Colton A. Secretary and Treasurer, N. B. Blackston Co., dry goods, Los Angeles, Cal.

Smith, Fred A. Florist and Market Gardener, 265 Euclid Ave., Lynn.

Smith, Luther W. Highland Farm, Marten, Ill.

Staples, Henry F. Physician and Surgeon, Solon, Ohio.

Tinaco, Luiz A. T. Sugar Planter, Camps, Rio Janeiro, Brazil.

'94.—Louis W. Barker is with T. J. Kelley, General Contractor, at 120 Washington St., Brookline.

'94.—Fred L. Greene is teaching in the public schools of New York. Address 410 West 115th St.

'94.—C. P. Lounsbury has returned to South Africa after a four months stay in this country. Mr. Lounsbury who is chief entomologist for the British government at Cape Colony was sent to this country to study the methods of the principal entomological stations; he has completed his study, having paid especial attention to the stations in California where the conditions are similar to those in South Africa.

'95.—Class president, Jasper Marsh, Danvers; class secretary, A. B. Smith, Ravenswood, Chicago, Ill.; corresponding secretary, Henry A. Ballou, Storrs, Conn.

'95.—Charles M. Dickenson, seedsman and florist at 76-78 Wabash Ave., Chicago, Ill.

'95.—Henry W. Lewis is in the Park Department civil engineers office, Havana, Cuba, under Col. Black. Address, Tacon 3, Havana, Cuba, Care Col. M. Black.

'96.—Merle E. Sellew, student in the course for nurses, Boston City Hospital.

'96.—Frank L. Clapp, with the Metropolitan Water Board. Address No. 15, Mount Vernon St., Boston.

'97.—P. H. Smith has been transferred to the Laboratory of the department of Foods and Feeding of the Hatch Experiment Station.

Ex-97.—Louis M. Huntress, Physical Director to the Northampton Y. M. C. A.

'98.—Willis S. Fisher, Principal in High School, Yorkville, Me.

'98.—Alexander Montgomery, Assistant Superintendent, Waban Rose Conservatories, Natic.

'98.—The LIFE is always glad to hear of births and after announcing so many marriages it is with the greatest of pleasure that we announce the birth of a son to Clifford Clark, Sunderland.

'99.—M. H. Pingree has been appointed assistant chemist at the Pennsylvania Experiment Station College, Pennsylvania.

Ex-99.—The engagement of A. A. Boutelle to Miss Anna Beaman of Leverett has been announced.

Ex-99.—John R. Dutcher and H. C. Courtney have engaged in the Wholesale and Retail Flour business. They are also Commission Merchants in New York city.

NINETEEN HUNDRED.

E. K. Atkins has accepted a position with C. E. Davis, Civil Engineer, at Northampton.

F. Guy Stanley has entered Harvard Medical school, Boston.

M. H. Munson is assistant cattle buyer for Swift & Co., Chicago. Address No. 309 East 56th St., Chicago, Ill.

Howard Baker, veterinary student at U. of P. Address No. 215 DeKalb Square, Philadelphia, Pa.

J. E. Halligan is assistant chemist at the Hatch Experiment station.

A. A. Harmon veterinary student at U. of P. Address No. 215 De Kalb Square, Philadelphia, Pa.

J. F. Lewis was in town recently.

Morton Campbell spent a few days in town recently.

Ex-'93.—Lee Phillips has entered the Massachusetts Institute of Technology, Boston. Address West Hanover, Mass.

L. C. GLAFIN, Editor-in-Chief.
R. W. MORSE, Business Manager.

THE "INDEX"

(VOLUME XXXII)

PUBLISHED ANNUALLY BY THE JUNIOR CLASS.

TO THE PUBLIC:—We wish to announce that the Year Book of the Class of 1902 is being compiled, and that time, thought, work and money are not being spared to make the XXXII Volume of the "Index" an accurate summary of the past college

year, and the mouthpiece of college thought and sentiment; as well as an ornament and a credit to our college.

To interest in the 1902 "Index" all who are interested in "Old Aggie" is the hope of

THE 1902 "INDEX" BOARD.

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A rich lady, cured of her Deafness and Noises in the Head by Dr. Nicholson's Artificial Ear Drums, gave \$10,000 to his Institute, so that deaf people unable to procure the Ear Drums may have them free. Address No. 4951c The Nicholson Institute, 780 Eighth Avenue, New York. U. S. A.

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AGGIE LIFE.

VOL. XI.

AMHERST, MASS., OCTOBER 24, 1900.

NO. 3

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Editorials.

THERE has lately been published by Hinds and Noble of New York a book entitled "Songs of all the Colleges." It includes representative songs from the different colleges over all the country as well as many new ones. The selections have been very carefully made and in some cases the old music has been retained but new words put to the measures. The book is destined to become very popular among both undergraduates and alumni, as it appeals to everyone's taste. It should be in the library of every student and cherished by him, for there is nothing in after life like college songs to bring back the old college days with their pleasant recollections.

THE game with Trinity on the 20th was a sad disappointment. Something was radically wrong. That the team should go to pieces so soon after the Williams game was a surprise to everybody. Everything

goes to prove that it is folly to think for a moment that anything but extreme carefulness and constant practice in signals and in team work can keep a team in shape for three games like those of the last week. The captain requires the support of every man not only on the gridiron but wherever else he may be. It is deeply disappointing and almost inexcusable to meet with so disgraceful a defeat. Everybody into it for the coming games. Let the scrub get out and show the "varsity" how to play football. We cannot afford to lose so disgracefully again.

THE LIFE wishes to call the attention of the students to the M. A. C. cadet band. It does not wish to dwell on the past, it would fain have nothing to do with the present also, for the subject of this editorial is quite enough in evidence by reason of its own noise at just this time, but of the future it would like to say one word. The band is a reality, its members are enthusiastic, and recent trials have shown distinct progress and considerable improvement over the

crude attempts of a few days ago. This fact gives us all encouragement and fills us with hope that the band will amount to something, and at no far distant time will be a valuable addition to our battalion. Considerable expense has been incurred by the College, which has given very substantial encouragement to the venture, and by the members of the band. The students should do what is in their power to help on the movement.

CLASS scrimmages in connection with class contests can hardly be helped; at least, while certain customs remain in vogue, and while college tradition is too conservative and powerful to dispense with these contests. This must be generally admitted, openly or otherwise. But experience teaches us that extremes are pernicious and dangerous and are liable to lead to a sweeping abolishment of many good customs, a final resort of those who never concern themselves with what comes within the bounds of reason. The affair of a week ago was disgraceful; neither time nor place was considered. It is to be hoped that good sense and moderation will prevail in the future; and that the annual freshman and sophomore rope-pull may remove a college custom, and the victories and trophies to which it leads, a part of each man's memory of the good times he had in college.

IN MEMORIAM

JOHN DAVIS WILLIAMS FRENCH.

John D. W. French was born in Boston, Jan. 29, 1841, and died at Atlantic City, N. J., May 2, 1900. He fitted for college in Dixwell's school, and entered Harvard College from which he was graduated with the class of 1863. Shortly after leaving college he entered the service of the United States Christian Commission. He remained in this work during the years 1864 and 1865. In the spring of 1866 he sailed for Europe remaining there a little more than a year, and returning to America in October, 1867. In November, 1867, he bought a farm at North Andover, Mass., afterwards known as "Cochickewick Farm." Here he engaged in cattle raising and soon became noted for his fine herd of Ayrshire cattle which brought many prizes. He was also awarded a prize of \$1000 by the Massachusetts Society for Promoting Agriculture for his famous larch plantation.

Mr. French's term of public service was a long one and the positions of trust and honor which he filled were manifold. He served from 1882 to 1885 in the Boston Common Council and was chairman of the Council Committee on Common and Public Squares. From 1866 to 1882 he was secretary of the Ayrshire Breeders' association, and was president from 1882 to 1883. He was a recognized authority on the Ayrshire breed of cattle, and in addition to his work as editor of the Ayrshire Record (Herd Book) published a pamphlet on Ayrshire cattle. He was for many years president of the New England Milk Producers' Union, and did valuable work for the American Forestry association. He was president of the Episcopal club of Boston and an active member in the Episcopal church. He was appointed a trustee of the Massachusetts Agricultural College in 1890. At the annual meeting of the Board of Trustees, held June 1, 1900, the following resolutions were read:

"In the death of John Davis Weld French this Board has lost a valued and respected member, a man whose excellent judgment and helpful and cheerful advice were often sought and thoroughly appreciated by those who knew him intimately. Although not born on a farm or educated at an agricultural institution he was one of the best informed agriculturists of our State, and loved agriculture for agriculture's sake, as shown by his disinterested work in its behalf for nearly forty years. He was a cheery, bright and witty man, and withal modest and unassuming. He was earnest and sincere, conscientious and absolutely upright in his dealings with men; slow to form friendships, but when his confidence was won he was a loyal and devoted friend. Abhorring deceit and sham, he admired frankness and honesty, which he typified. He was courageous and outspoken, helpful and benevolent in quiet and unobtrusive ways. His services in connection with the many and varied agricultural interests of the State should be commended particularly by this Board, notably his work in behalf of pure milk for our cities, and the re-organization of the New England Milk Producers' Union, of which he was president for many years; his efforts to purify and elevate the agricultural exhibitions of the country as encouraged and carried on by the Bay State Agricultural society, of which he was one of the leading founders and president for four years; his work in

behalf of forestry, his cherished interest, and to which he gave liberally of his time and money; his devotion to horticulture as shown by his long and active connection with the Massachusetts Horticultural society, and last but not least his honorable service for eight years on this Board and for this College, which next to his Alma Mater he cherished most dearly—all this and more deserves our recognition and should have its proper place in our annals. He was a large hearted, noble, Christian man, and a beautiful example to his fellowmen. His life was a splendid success."

GEORGE H. ELLIS.

George H. Ellis was born in Medfield, Mass., Oct. 3, 1848. His childhood was spent upon the farm and here he learned to love the life which he afterwards took up of his own accord in addition to the active business which he has built up and carries on to-day in Boston. His early schooling was obtained in the public schools of Medfield. In 1865, he took a business course of study in a Boston commercial college, and in December of the same year entered the office of the *Christian Register* as clerk. In 1868 he became its business manager and still retains a business connection with the paper. In 1873 he began in a very simple way to do job printing, thus laying the foundation for what has become one of the largest general printing offices in Boston. He also carried on a considerable book and periodical business in addition to his job printing. In 1890 his interest in and love for farming led him to buy a small farm of only twenty-five acres almost in the geographical centre of the city of Newton. The farm is a part of and forms the basis of operations for "Wanwinet Farm" which comprises in land owned and leased more than twelve hundred acres, and in stock kept upon it more than three hundred and fifty head of thoroughbred and grade Jersey cattle. Mr. Ellis has been twice married, and has two children, both by his first wife. He was appointed a trustee of the Massachusetts Agricultural College in 1900.

A kind of Employment Bureau, known as the Department of Self-Help, has recently been instituted at Yale. Its objects is to supply needy and worthy students of the University with work, by obtaining for them positions with the business men of the city.

CADET BATTALION, M. A. C., ROSTERS.

FIELD AND STAFF.

William C. Dickerman, '01, Major.
Clarence E. Gordon, '01, First Lieut. and Adjutant.
John C. Barry, '01, First Lieut. and Quartermaster.
Charles L. Rice, '01, Sergeant Major.

BAND.

Myron H. West, '03,	{ First Serg't, Chief Musician. 1st E flat cornet.
Handy, R. S., '04,	Private, cymbals.
Haskell, S. E., '04,	2d Alto.
Kirby, D. W., '04,	E flat Bass.
Parker, S. R., '04,	2d B flat cornet.
Pease, J. A., '04,	1st B flat cornet.
Peck, A. L., '04,	Solo Alto.
Pierce, H. C., '04,	B flat Bass.
Richardson, C., '04,	2d Tenor.
Robertson, R. H., '03,	Baritone.
Smith, S. L., '02,	Solo B flat cornet.
Tottingham, W. E., '03,	1st Tenor.
Webster, F. W., '03,	Snare Drum.
West, D. N., '02,	Piccolo.
Witherell, G. A., '04,	Bass Drum.

COMPANY "A."

N. D. Whitman, '01,	Captain.
E. S. Gamwell, '01,	First Lieutenant.
T. Graves, Jr., '01,	Second "
J. H. Chickering, '01,	First Sergeant.
H. A. Paul, '02,	Second "
W. A. Dawson, '01,	Third "
P. C. Brooks, '01,	Fourth "
R. W. Morse, '02,	Fifth "
W. Z. Chase, '02,	First Corporal.
G. R. Bridgeforth, '01,	Second "
C. A. Tinker, '03,	Third "
W. R. Pierson, '01,	Fourth "
Allen, W. E., '03,	Private.
Baker, R., '04,	"
Barnes, H. L., '04,	"
Belden, J. H., '02,	"
Bowen, H. C., '03,	"
Cheever, H. M., '03,	"
Claflin, L. C., '02,	"
Cook, L. A., '02,	"
Dellea, J. M., '02,	"
Franklin, H. J., '03,	"

Gregg, J. W., '04,	"	Cook, J. G., '03,	"
Graves, G. A., '04,	"	Collins, '04,	"
Halligan, C. P., '03,	"	Cooley, O. F., '02,	"
Harris, F. A., '03,	"	Copeland, W. W., '04,	"
Henshaw, F. F., '04,	"	Couden, F. D., '04,	"
Higgins, W. E., '03,	"	Cummings, J. F., '04,	"
Hill, L. W., '04,	"	Elwood, '04,	"
Hood, W. L., '03,	"	Esip, E., '04,	"
Kinney, C. M., '02,	"	Fahey, J. J., '04,	"
Lewis, C. W., '04,	"	Gates, V. A., '02,	"
Monahan, N. F., '03,	"	Gay, R. P., '04,	"
Nersessian, P. N., '03,	"	Griffin, C. H., '04,	"
Paul, A. R., '04,	"	Haffenreffer, A. F., '04,	"
Peebles, W. W., '03,	"	Hodgkiss, H. E., '02,	"
Poole, E. M., '03,	"	Jones, G. D., '03,	"
Raymoth, R. R., '04,	"	Kellihir, J., '04,	"
Root, L. A., '01,	"	Knight, H. L., '02,	"
Ryan, A., '04,	"	Lewis, C. I., '02,	"
Snell, E. B., '03,	"	Martin, H. T., '03,	"
Staples, P. F., '04,	"	Newton, H. D., '04,	"
Tashjian, D. B., '01,	"	Ovalle, J. M., '01,	"
Thompson, C. L., '04,	"	Parsons, A., '03,	"
Tottingham, W. E., '04,	"	Proulx, E. G., '03,	"
Tower, W. V., '03,	"	Quigley, R. A., '04,	"
Witt, H. B., '03,	"	Richardson, H. L., '03,	"
		Saunders, E. B., '02,	"
		Sawin R., '04,	"
		White, H. M., '04,	"

COMPANY "B".

A. C. Wilson, '01, Captain.
 E. L. Macomber, '01, First Lieutenant.
 Thomas Casey, '01, Second "
 C. T. Leslie, '01, First Sergeant.
 R. I. Smith, '01, Second "
 J. H. Todd, '01, Third "
 J. B. Henry, '01, Fourth Sergeant.
 A. L. Dacy, '02, Fifth Sergeant.
 E. F. McCobb, '02, First Corporal.
 C. E. Dwyer, '02, Second "
 J. C. Hall, '02, Third "
 T. F. Cooke, '01, Fourth "
 Bach, E. A., '04, Private.
 Bacon, S. C., '03, "
 Barrus, G. L., '03, "
 Blake, E. E., '03, "
 Bodfish, H. L., '02, "
 Bowler, P. H., '03, "
 Brooks, P. W., '03, "
 Church, F. R., '02, "

A TRIP TO LEVERETT.

About ten members of the Natural History Club took advantage of the fine weather on Wednesday afternoon by taking a long tramp to Leverett. The afternoon was almost perfect, and the walk proved a very enjoyable one. The objective point was the galena mine near Leverett station. The men studied the rock formation about the abandoned mine, and collected specimens of feldspar, showing typical cleavage, quartz, and some galena, which seemed to be a rather scarce article. Professor Howard accompanied the party, pointing out many things of interest. A trip will be made in the near future to the asbestos mine in Pelham. An interesting time is promised and more of the fellows are urged to join the party. Notice of date and arrangements will be duly announced on the bulletin board.

Athletic Notes.

WESLEYAN, 17; AGGIE, 0.

On Saturday Oct. 13, Aggie sent a crippled team to Middletown and was defeated by the above score. Considering the condition of the team the score is very gratifying, showing the men strong in both defensive and offensive play. Lewis was unable to go into this game on account of injuries, so Bodfish was put at full and Kellehir and Dellea shared the honors at one end, while MacCobb held down the other. At the best the combination was weak and uncertain.

Wesleyan kicked off to Aggie in the first half the ball being downed on the twenty-five yard line. By a series of fierce line rushes and runs just outside tackle the ball was carried to Wesleyan's fifteen-yard line where the ball was held for downs. Wesleyan then worked the ball back up the field playing the ends and rushing the ball outside the tackles but never gaining through our line. After a little more than nineteen minutes of play, Montgomery was sent across the line for a touchdown.

In the second half Wesleyan held the ball the greater part of the time. Aggie's attack seemed to weaken and the line was unable to withstand the rushes of the Wesleyan backs. In this half the greatest weakness of the team was exposed, that in our kicking department. Barry tried the kicks at first but succeeded in getting them off too late or else kicked straight into the air. Later Snell was tied with but poor success. Inglis for Wesleyan did some fine kicking getting the ball off well and covering a great deal of distance.

The scoring in the second half was done by Inglis and Lacey, no goal being kicked from the first touchdown. Through the game the strong work of Inglis, C. Dodds and T. F. Cooke were the features.

The line up:

WESLEYAN.

S. A. Dodds, l. e.
Yarrow, l. t.
Pike, l. g.
Randall, Day, c.
Stillman, r. g.
Montgomery, Thompson, r. t.
Garrison, r. e.
C. R. Dodds, q. b.
Lacey, l. h. b.
Calder, McConnell, r. h. b.
Inglis, f. b.

AGGIE.

r. e., Dellea
r. t., Cooke
r. g., Gamwell
c., Paul
l. f., Snell
l. t., Halligan
l. e., McCobb
q. b., Whitman
r. h. b., Barry
l. h. b., Chickering
f. b., Bodfish

Score—Wesleyan 17, Aggie 0. Touchdowns—Montgomery, Inglis, Lacey. Goals from touchdowns—Yarrow 2, Referee—R. E. Davis of Middletown. Umpire—Steele of Hartford. Linesmen—Cornwall of Wesleyan and Kellehir of Amherst. Time—20 and 15 minute halves.

WILLIAMS, 5; AGGIE, 0.

On Wednesday, Oct. 17, Aggie held Williams to a single touchdown on Weston Field. It was a glorious day for football and our team played a strong and snappy game, always gaining when holding the ball and contesting every inch hotly when not in possession of the pigskin. Straight football marked our play while Williams resorted to tricks.

Cooke lost the toss and kicked off to Williams. The ball was advanced a few yards and then downed. Williams gained a few yards by rushes on the tackles and then lost the ball on downs. Aggie then rushed the ball into Williams' territory to lose it on downs also. The Williams team then tried a quarter-back run, and succeeded in getting around MacCobb for twenty-five yards. They got around him again on a straight end run which brought them to Aggie's twenty-yard line. Short gains brought the ball to our ten-yard line where Williams fouled and lost the ball. Aggie tried plays but was forced to kick. Williams by repeated rushes on our tackles sending the plays just outside, succeeded in pushing Graves over for a touchdown after 19 minutes and 40 seconds of play.

In the second half Williams kicked off and Aggie at once showed her offensive strength, rushing the ball to Williams ten yard line. Here Williams' official saw a foul and took the ball, thus destroying our chances of winning. Williams was unable to gain and was forced to punt, several kicks being exchanged and Cooke always coming out best on distance. Williams worked another trick in this half winning her about forty yards. The game ended with the ball in Williams' possession on our thirty yard line.

The game was a very pretty one to watch, the ball changing hands continually and both sides being liable to score at any time. The features were the work of the four tackles Cooke and Halligan, Simmons and Hatch.

WILLIAMS.

O'Neil, l. e.
Simmons, l. t.
Davenport, l. g.

AGGIE.

r. e., Bodfish
r. t., Cook
r. g., Gamwell

Kanter, c. c., Paul
 Huggins, r. g. l. g., Snell
 Hatch, r. t. l. t., Halligan
 Rooney, r. e. l. e., McCobb
 Leggett, q. b. q. b., Whitman
 Graves, l. h. b. r. h. b., Barry
 Jacckel, Lawrence, r. h. b. l. h. b., Chickering
 Dloph, Peabody, f. b. f. b., Lewis
 Score—Williams 5. Touchdown—Graves. Umpire—
 Draper, Williams. Referee—Rice, Amherst. Time—20 and
 15 minute halves.

TRINITY, 23; AGGIE, 0.

On Saturday, October 20, our team met the aggregation representing Trinity College at Hartford. The listless work of our boys combined with an utter disregard of the Trinity men for the rules of the game as well as an umpire who refused to see the most open and dirty fouls account for the score.

The line-up:

TRINITY.	AGGIE.
Broden, l. e.	r. e., Bodfish
VanTyne, l. t.	r. t., Cooke
Hill, l. g.	r. g., Gamwell
M. Johnson, c.	c., Paul
W. Johnson, r. g.	l. g., Pierson, Bridgforth
Henderson, r. t.	l. t., Halligan
Maddex, r. e.	l. e., McCobb
Wheeler, q. b.	q. b., Whitman
Brearley, l. h. b.	r. h. b., Barry
Bellamy, r. h. b.	l. h. q., Chickering
Townsend, f. b.	f. b., Lewis

Score—Trinity 23, Aggie 0. Referee—Halligan, Amherst.
 Umpire—Ellis, Trinity. Linesmen—Leslie and Barnes.
 Time—20 and 15 minutes halves.

THE ANNUAL ROPE-PULL.

The rope-pull which took place on the campus Friday afternoon, October 19th, resulted in a victory for the Sophomores. When the rope was brought upon the field it was found to be a quarter of an inch too small in diameter, but Captain Barrus of the Sophomore team consented to pull with it.

The Sophomores gained a foot on the drop and without waiting to gain good foot-holds started to heave. At first neither side gained but the better team work of the Sophomores soon began to tell. The Sophomores could boast eleven feet of Freshman rope their side the stake when time was called. The Sophomore team was handicapped by the absence of Snell, its anchor, who was unable to pull. After the pull the winning side celebrated in true autumn coun-

try fashion. The teams were made up as follows: Sophomore, G. L. Barrus, capt.; H. C. Bowen, P. H. Bowler, C. P. Halligan, W. E. Allen, H. J. Franklin, anchor. Freshman, C. W. Lewis, captain; P. P. Gay, D. W. Kirby, H. H. Witt, J. A. Pease, H. C. Pierce, anchor.

College Notes.

—Frost and chestnuts.

—The Belchertown fair has "happened" and none are reported missing.

—E. F. McCobb, 1902, slightly injured his knee in the game with Williams.

—Messrs. Claflin and Morse, 1902, spent last week in Boston on business.

—It appears that we are to have fire-drill shortly. This will be new to most of us and—variety is the spice of drill.

—The first gathering of Mr. Petit's dancing class for students will be held in Grange Hall to-night, 24th inst, at 7-30 o'clock.

—President Goodell and Prof. W. P. Brooks will represent the college at the inauguration of President Prickett at M. I. T. to-day.

—Alden H. Clark, secretary of the Amherst college Y. M. C. A. gave an interesting talk before our Y. M. C. A. Sunday afternoon.

—Word has been received that two Greek boys are coming from Robert's college, Constantinople, Turkey to enter the Mass. Agricultural College.

—Snell, 1903, had the misfortune to sprain his ankle in the Williams' game. He is able to be about, having had it put in a plaster cast.

—The Natural History Society has arranged to take several tramps about the country. A number of the fellows went to Leverett Wednesday.

—Target practice is now carried on in a systematic way, both the one and the two hundred yard ranges being used. Major Dickerman is in charge.

—The juniors are now delivering their first orations. Oratorical training is a very important part of a thorough college education and the fact that we have no organized debating society makes it much more so in our case.

—The senior class in surveying is engaged in making plans for a railroad about the College grounds. For shares of stock apply to anyone in the above department.

—The following have become members of the Country club: Allen, Griffin, Thompson, Haffenraffer and Couden. Golfing at the Amherst links is becoming very popular.

—Lewis, 1904, cut his foot so badly that he could not play in the Wesleyan game, but he recovered in season for the Williams' game and is now practicing every day.

—The Year Book of the Department of Agriculture for the year 1899 contains a long and exhaustive article on agricultural education in the United States by Prof. Herman Babson of this College.

—A large delegation of students attended the address of Senator Hoar at Northampton Thursday night. This was an exceptional opportunity to hear so distinguished a man, and many of our local politicians took advantage of it.

—It happens that most of the band musicians room in east entry of North College. For a time that portion of the dormitory was a musical bedlam, but this has been stopped by a military bulletin, much to the relief of everybody in general.

—The Natural History Society has elected the following-named officers; President, C. Gordon; vice-president, C. E. Dwyer; secretary and treasurer, T. F. Cooke; executive committee, A. C. Wilson, A. C. Monahan, J. B. Knight, C. Carpenter.

—The students have organized a Republican club by electing the following-named officers: President, T. F. Cooke; vice-president, N. D. Whitman; secretary and treasurer, T. Casey; executive committee, T. F. Cooke, N. D. Whitman, T. Casey, W. A. Dawson, C. L. Rice.

—Dr. Walker addressed the members of the Republican Club on "Imperialism and a Silver Currency," in the chapel Monday evening. He contrasted the Imperialism of the Roman Empire, the British Empire, and that of Spain with that of the United States and endeavored to show that the present policy of the United States would make her the dominating influence for good in the East, and would place her in

command of the great Pacific Ocean, the control of which must soon mean the domination of the World. He had no faith in a currency without gold, and stated that his convictions should lead him to vote for Mr. McKinley and the Republican party.

THE EVOLUTION OF THE INDEX.

The pioneer classes of a college determine to no slight degree its subsequent history. Upon them devolves the responsibility of establishing the traditions which succeeding classes must follow. Nowhere is the law of precedent so strong as at college; "what has been, must be."

It is to be regretted that the traditions of this college are not more numerous. A healthy college spirit needs the historic customs of the past behind it in order that it may be lasting. But we may at least rejoice that those customs which have been established have been for the most part faithfully followed.

The publication of the *Index* is an example; begun by the first class that entered the College, and it has been continued every year. Hardly a class but has found the book a burden. Many classes have been in doubt as to the wisdom of issuing it. Often it has seemed to the smaller classes well nigh impossible, yet it has always been done. The class of '84 numbered but five men, not enough to make up a complete board of editors. How they managed is a mystery; we notice that with a certain grim humor they dedicated the book to "their sorrowing creditors," but at any rate the *Index* came out. The class of '98 with only ten men and with precedent requiring a much more elaborate volume than that of the early days had a tremendous struggle but the *Index* came out for all that. The class of '71 had no alumni to depend on, only two other classes were in college, the Faculty was small, the College itself comparatively unknown and friendless. Yet in spite of these unfavorable conditions the *Index* was begun and as has been stated, never was permitted to lapse.

It must not be supposed, however, that the *Index* of 1869 was in many respects identical with the *Index* as published in the last few years. On the contrary, the annual has been enlarged and improved in a degree proportional to the growth and the development of the College. The

'71 *Index* is hardly to be considered with the pretentious and elaborate volume of '01. Yet the contrast is probably no more striking than would be a comparison of the buildings or of the courses of study of the two periods. The College has grown and the *Index* with it.

The first *Index* was a pamphlet of twenty-eight pages, each not more than half as large as those used to-day. It was bound in a yellow paper cover, and it must be admitted looked more like a dime novel than a modern college annual. No board of editors is given, and nothing said as to the existence of athletic teams or other college organizations. There is simply an introductory article, the class histories, the class statistics and the list of members of the two fraternities then in existence. In the introduction, wherein the reasons for the publishing of the book are set forth occurs this noteworthy statement: "The reader of the Faculty catalogue would have almost no conception of the throbbing, active life beneath that cold formal exterior; to show the College from the students' standpoint as a living active body is our purpose." It will be admitted by all that succeeding *Index* boards have always remained faithful to this high ideal.

Volume II was of a similar nature, but the number of pages was increased to 42. Boating and baseball statistics appear for the first time as do also a few "roasts" for which the book in later years became noted.

Volume III contained 48 pages, aside from the histories entirely devoid of literary matter. The most glorious athletic achievement of the College, the defeating of the crews of Harvard and Brown at Ingleside in record-breaking time receives bare mention, which indicates that the victory was taken quite as a matter of course.

Volume V contained 64 pages, which was the limit for several years. It is noteworthy as the first issue to be illustrated. Advertisements were not used until a year later and alumni statistics were not collected till 1877. The calendar of happenings was added in 1879. The mechanical appearance of the book was constantly improving. The illustrations, which in the earlier volumes can be compared only to Egyptian hieroglyphics, soon became much more artistic. Photogravures were added in the early '80's and have ever since been one of the most attractive

features of the book. A good substantial cover took the place of the flimsy paper affair in 1890, and now the covers receive much of the artist's attention. The size of the pages was nearly doubled about this time, and again enlarged last year. The number of pages is now about 200. An *edition de luxe* was gotten out for the first time last year. It is an open question, however, whether under present conditions this last is not an unnecessary extravagance.

Literary development came slowly. English and English composition were taught but meagerly in the early days, there was no College paper, and there was but little to draw out the students' latent abilities. Verse of more or less excellence appears scattered through the pages, but only in recent years has it been at all conspicuous. The first prose work was an article each year from some prominent alumnus. This feature was retained till quite recently. Later, descriptions of prominent events, occasional stories and miscellaneous articles are to be found. Classes in recent years have sought particularly for special features in which to excell their predecessors, and today the book compares very favorable with the average of the annuals of the leading colleges of the country.

How much further improvement can be made is a question. Unfortunately, but necessarily, the improvements of the past have enormously increased the cost of production. A limit must soon be reached. The price at which the book is always sold does not now pay half the cost of printing alone. Advertisements help to quite an extent, yet the business manager ought not to be obliged to devote so much time to securing them. The one feature of the *Index* which in all these years has not improved is its sales. It is true that the College is no larger now than it was thirty years ago, and the proportion of students purchasing the book is probably as high as ever. But there is this difference between the two periods. In 1879 there were no alumni whatever; in 1900 there are over six hundred. In other institutions the college annual is supported by the alumni almost to a man. Last year our six hundred alumni are reported to have purchased collectively and individually the magnificent total of thirty copies. Thirty copies! that means thirty dollars as the amount of financial support our alumni have given us. The alumni list alone, published by the *Index* for the ben-

efit of alumni, and which list be it remembered is never published in the annuals of the colleges about us, cost the board over fifty dollars. It costs every member of the junior class a minimum of ten dollars to issue the *Index*; our worthy alumni, men with good positions and liberal salaries consider they have done all that could be expected when they contribute five cents apiece. And to cap the climax some of them object because the *Index* is not better.

This then is the situation. The *Index*, like our athletic department has been brought to a high standard, but only by becoming too heavy a burden on the student body. It is very doubtful whether under present conditions either can be materially improved. The one way to better these conditions lies in the adequate support of the College by the Alumni. When this is given, it will not be too much to hope that the *Index*, the athletic teams, and all the student organizations will attain a standing even more gratifying than any achievements of the past.

OCT. 19, 1900.

To PRES. H. H. GOODELL,

My Dear Sir:—I wish to extend my hearty congratulations to the foot-ball eleven and substitutes, for the splendid showing which they have made thus far against strong college teams. It proves conclusively that our boys at the Agricultural College are made of the right stuff. May the good work go on.

Yours very truly,

H. E. CRANE, '92.

Intercollegiate.

Courses in Japanese and Chinese are now offered at the University of California.

Owing to a recent decision of Wesleyan's Faculty, all tutoring must now be done by official tutors.

A course in Marine Engineering leading to the degree of M. S. has been established at the University of Michigan.

Scholarships at the University of Chicago have recently been awarded to ten Porto Ricans, who desire to complete their education in the United States.

It has been definitely decided that the next Olympian games will be held in this country at the Pan-American Exposition at Buffalo, N. Y. in 1901.

Church attendance is to be no longer compulsory at Bowdoin, but a record of attendance will be kept and sent out to the students' parents at the close of each term.

The Medical, Dental and Veterinary College of Harvard University will soon be moved to Brookline, where commodious grounds of about twenty-five acres have been purchased.

A gymnasium of white marble, with a specially constructed movable roof which provides for open air exercise, is the latest addition to the University of California. The cost is said to be over \$2,000,000.

An intercollegiate basket ball association is being formed, Harvard, Brown, Yale, Williams, Wesleyan and Dartmouth has signified their intentions of becoming members. Other colleges will be admitted on application. Games will be played this winter for the intercollegiate championship.

A time-honored contest between the lower classmen at Wesleyan is what is known as the "cannon scrap." Tradition decrees that the Freshmen shall attempt to fire a certain cannon on the campus between twelve and one o'clock of the night preceding Washington's Birthday. To do this, the Freshmen remove the cannon some time previous, and hide it from the Sophomores. When the appointed hour comes, it is brought back to the campus and there if the Freshmen are sufficiently numerous loaded and fired. A committee of upper classmen act as judges and have strict supervision over the whole struggle.

LIBRARY NOTES.

"*The Last Sentence*" by Maxwell Gray is the title of an interesting book which has lately been added. The author's name will testify as to the value of the book, no words from us are necessary.

"*Familiar Fish*," their habits and capture by Eugene McCarthy. Angling is a recreation in which all should indulge, often times it affords a rest from study or business and the excitement of the sport fills you with new life. The author admits that it is very difficult to teach angling from a book, one must learn by experience. The author was an experienced fisherman and has given us the results of his experiments and observations in this book. He first gives us an idea of how fish are hatched and propagated and then a complete description of each family

with a few words in regard to each member. Fishing tackle is discussed and illustrations of each fish given. The book is written in a clear, simple manner, every idea and thought can be easily understood.

“ *Women of the Valois Court* ” by Imbert de Saint-Amand. This is a life history of Marguerite, sister of Francis I and Catherine de Medici and her contemporaries at the French court. It was written originally in French and has been translated by Elizabeth Gilbert Martin. These two women have played an important part in French history. They directed public affairs, made and broke treaties and shared in the Civil War. The book is an excellent translation, facts and dates are strictly adhered to, and the whole written in excellent form.

“ *One Thousand American Fungi* ” by Charles McIlvaine. It gives full botanic descriptions of toadstools, mush-rooms, fungi edible and poisonous ; how to select and cook the edible and how to distinguish and avoid the poisonous. The author became interested in the subject from having read a short account of “ Toadstool Eating ” in the *Popular Science Monthly*, which lead to his beginning a study for himself. To make his research as complete and correct as possible he has tested every variety himself and says there is no general rule by which you can distinguish the poisonous from the edible varieties. The subject is treated in an exhaustive manner and everything fully illustrated. It is not designed for reading, but more for reference. The book is large and rather clumsy. It would be much more easily handled if it were divided into two volumes.

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1887, SAMUEL CLARENCE THOMPSON, '72,	1888
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1889, SANDFORD DWIGHT FOOT, '78,	1890
1890, COL. ASA WILLIAMS DICKINSON, '74,	1892
1892, EDGAR HOWARD LIBBY, '74,	1893
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 1893, Harry Kirke Chase, '82, 1895
 1895, Prof. Chas. Loami Harrington, M. A., (Amherst, '70) 1896
 1896, Sanford Dwight Foot, '78, 1897
 1897, Harry Kirke Chase, '82, 1898
 1898, Sanford Dwight Foot, '78.

Historian.

1895, John Ashburton Cutter, M. D., '82.

THE MEMBERS OF THE CLUB.

FROM THE FACULTY.*

PRESIDENT HENRY H. GOODELL, M. A., LL. D., Amherst, Mass.
 EX-PRESIDENT LEVI STOCKBRIDGE, Amherst, Mass.
 Henry E. Alvord, Capt. 10th Cav. U. S. A.; Dep't of Agric. Washington, D. C.
 Herman Babson, M. A., Assistant Professor of English, Amherst, Mass.
 Charles A. Goessmann, Ph. D., LL. D., Professor of Chemistry, Amherst, Mass.
 Charles L. Harrington, B. A., 38 West 59th St., New York.
 Abner H. Merrill, Major 3rd Artillery, U. S. A.
 George F. Mills, M. A., Professor of English and Latin, Amherst, Mass.
 Charles Morris, Maj. 7th Artillery, U. S. A.
 Henry W. Parker, M. A., D. D., Care Popular Science News, 108 Fulton St., N. Y.
 Charles A. L. Totten, M. A., 1st Lieut. 4th Artillery, U. S. A., resigned, Milford, Conn.
 A. Courtenay Washburne, Actuarial Dep't Metropolitan Life Ins. Co., 1 Madison Avenue, New York.

OTHER GUESTS OF THE CLUB.†

William H. Brewer, M. A., Ph. D., (Yale '52) Professor of Agriculture, Yale University, New Haven, Conn.
 Ephraim Cutter, M. D., LL. D., (Yale, '52) 120 Broadway, New York.
 Dr. F. M. Hexamer, New York City.
 Wm. Ives Washburn, Esq., M. A., (Amherst, '76) Judge Advocate 5th Brigade, N. G. N. Y., 71 Broadway, New York.

*Other members of the Faculty have been present as guests of the Club but are classed with the following alumni list.

†But not members.

FROM THE ALUMNI.

Class of 1871.

Andrew L. Bassett, Pier 36, East River, New York City.
 William P. Birnie, Springfield, Mass.
 William H. Bowker, M. A. C. Trustee, 43 Chatham St., Boston, Mass.
 Robert W. Lyman, LL. B., M. A. C. Lecturer, Northampton, Mass.
 William D. Russell, International Paper Co., 30 Broad Street, New York.
 George C. Woolson, Passaic, N. J.

Class of 1872.

William E. Bullard, B. A., M. D., 113 East 40th St., New York City.
 Daniel P. Cole, Springfield, Mass.
 John C. Cutter, M. D., 7 Gates St., Worcester, Mass.
 Charles O. Flagg, Director Agr'l Experiment Station, Kingston, R. I.
 Samuel T. Maynard, Professor of Horticulture, Amherst, Mass.
 Frederick W. Morris, 114 Fifth Ave., New York City.
 Frederick M. Somers, died Feb. 2 1894.
 Samuel C. Thompson, Mem. Am. Soc. C. E., 950 East 166 St., New York City.

Class of 1873.

John B. Minor, 127 Arch St., New Britain, Conn.
 James H. Webb, LL. B., Church & Crown Sts., Instructor Criminal Law & Medico-Legal Jurisprudence Yale, New Haven, Conn.
 Charles Wellington, Ph. D., Associate Professor of Chemistry, Amherst, Mass.

Class of 1874.

Frank E. Adams, 18 Powell St., Brooklyn, N. Y.
 John M. Benedict, M. D., 18 Main St., Waterbury, Conn.
 Asa W. Dickinson, died Jan. 8, 1899.
 Edgar H. Libby, Lewiston, Idaho.
 William Lyman, died Dec. 20, 1896.
 Frank A. Towne, died March 11, 1896.

Class of 1875.

Joseph F. Barrett, 68 Broad St., New York City.
 John A. Barri, 294 Washington Ave., Bridgeport, Conn.
 William P. Brooks, Prof. of Agric., Amherst, Mass.
 Henry S. Jackson, East Orange, N. J.
 John F. Winchester, D. V. S., Lawrence, Mass.

Class of 1876.

Charles H. Phelps, 23 Park Row, New York City.
Joseph E. Root, M. D., 49 Pearl St., Hartford, Conn.

Class of 1877.

Walter M. Dickinson, Capt. U. S. A., died July 2, 1898
from injuries received at El Caney.
Henry F. Parker, LL. B., died Dec. 21, 1897.
Charles H. Southworth, South Hadley Falls, Mass.
Frank G. Urner, 173 Chambers St., New York City.

Class of 1878.

Sandford D. Foot, Patterson, N. J.
Henry G. K. Heath, Ph. B., LL. B., 54 Wall St.,
New York City.
Henry F. Hubbard, 94 Front St., New York City.
Charles O. Lovell, 591 Broadway, New York City.
Charles E. Lyman, Middlefield, Conn.
Frederick Tuckerman, M. D., Ph. D., Amherst, Mass.
John H. Washburn, Ph. D., President R. I., Agr'l &
Mech. Coll., Kingston, R. I.

Concluded in next issue.

Alumni.

The fifteenth annual banquet of the Massachusetts Agricultural College Club of New York will take place at Hotel St. Denis, Broadway and 4th Sts., Friday evening, Dec. 7th, at 6-30 o'clock.

'71.—Wm. D. Russell is auditor for International Paper Co. Address, No. 30 Broad. St., New York City.

'80.—William C. Parker is a candidate for alderman, wards 10—19, Boston, Mass. Address 340 Tremont Bldg., Boston.

Ex-'87.—Frederick Deming Tucker has been appointed principal of the Minnesota School of Agriculture.

'90.—F. W. Mossman of the Department of Foods and Feeding, Hatch Experiment Station, is collecting samples of fodders throughout the state.

'94.—A. J. Marse is taking a course in law at Boston University Law School. Address, 202 Northampton St., Boston, Mass.

'94.—In Spencer, Mass., Sept. 11, a daughter to Mr. and Mrs. Linus H. Bacon.

'96.—Frank L. Clapp's address is No. 3 Mt. Vernon St., Boston, instead of No. 15 as published in our last issue.

'98.—A. G. Adjemian has returned to Turkey. Address, care of Rev. Herman Barnum, Karpoot, Turkey.

'99.—W. A. Hooker has resigned his position with Meekins, Packard & Wheat of Springfield, and is now taking a course of study and training for nurses at the Worcester City hospital, Worcester, Mass.

'00.—James F. Lewis is private secretary for Representative William C. Parker. Address 340 Tremont Bldg., Boston, Mass.

'00.—E. T. Hull's address is 258 West 54th St., New York.

'00.—A. F. Frost is with the Boston Bridge Works, at 70 Kilby St. Address, Room 16, Greenwich Park, Boston, Mass.

L. C. CLAFLIN, Editor-in-Chief.
R. W. MORSE, Business Manager.

THE "INDEX,"

(VOLUME XXXII)

PUBLISHED ANNUALLY BY THE JUNIOR CLASS.

TO THE PUBLIC:—We wish to announce that the Year Book of the Class of 1902 is being compiled and that time, thought, work, and money are not being spared to make the XXXII Volume of the *Index* an accurate summary of the past college year and the mouthpiece of college thought and sentiment; as well as an ornament and a credit to our college.

To interest in the 1902 *Index* all who are interested in "Old Aggie" is the hope of

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AMHERST, MASS., NOVEMBER 7, 1900.

NO. 4

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LEANDER CHAPIN CLAFLIN, 1902, Assistant Business Manager.

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NEIL FRANCIS MONAHAN, 1903.

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Foot-Ball Association,	C. L. Rice, Manager.	Base-Ball Association,	C. L. Rice, Manager.
College Boarding Club,	J. H. Chickering Sec.	Nineteen Hundred and Two Index,	R. W. Morse, Manager.
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Entered at the Post Office as second-class mail matter.

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Editorials.

WE wish to call the attention of our alumni readers to a communication, found in another column, addressed to them by a graduate whose interest in and support of M. A. C. athletics merits their courteous consideration of the opinions therein expressed. The writer has faithfully set forth in his communication the circumstances in which we found ourselves during the early part of the football season, and those in which we are now placed. We trust that our graduate members will see the situation in a favorable light at this most critical time.

WITH the close of the year 1901, one of the most remarkable decades in history, more particularly, perhaps, in the history of a great movement in the interest of public education, will have been brought to an end. The great educational influence of this decade of expositions can never be measured; it is too far-

reaching. In view of the fact that the College is to be represented at the great Pan-American exposition to be held in Buffalo next year, we have considered it appropriate to publish concerning the exposition a few facts which we have obtained from reliable sources, in connection with a short outline of the proposed exhibit of the agricultural and horticultural resources of the State of Massachusetts. Both articles will be found elsewhere in this issue.

MANY will remember the attempt that was made a year or two ago to start a debating club. The idea did not meet with a very favorable reception at the time it was brought forward. It was put aside for a time, not because there was any objection to such a club but rather because there was a feeling that something more important required the time and energy of the students. The other plans that were proposed never materialized, and so nothing came of our cherished hopes. The debating club is not a new idea, but it is a noble one. We venture to assert

without fear of contradiction that taking part in a rightly conducted debate results in more genuine help to the average man than does any other manner of public speaking. Those who have had any experience at all will recall with pleasure and satisfaction the fiery debates and jolly times held in the old debating hall. We learn that a club has been organized and that a debate has been arranged for. May the Club grow and prosper and enjoy a useful life.

THE PAN-AMERICAN EXPOSITION.

In order to set forth the difficulty of the task of deciding which of the features of the great Pan-American exposition is most to be praised one writer has taken a pretty and familiar story from Greek mythology. The young shepherd boy, Paris, who, it will be remembered, afterward eloped with the celebrated Helen of Troy was once brought face to face with a most perplexing proposition. He was compelled to decide which of the three handsome goddesses, Venus, Menerva or Juno, was the most beautiful. In awarding the prize for beauty to the Goddess of Love he must needs incur the enmity of the two other fair divinities. "But," says the same writer, "the task which Paris had was trifling compared with that of deciding which of the many beautiful features of the Pan-American exposition is most to be admired." The exposition indeed promises to be one of "unrivalled beauty" and one whose educational and commercial influence will be far-reaching.

The city of Buffalo has been busy for many months in the solution of the great problem of how to accommodate the immense concourse of people who will flock to that city next summer. The attendance bids fair to be nearly as large as that of the World's Fair at Chicago, for within a radius of 500 miles of Buffalo there is a population of some 40,000,000. If the exposition promises to be a brilliant success it is probable that the greater proportion of this population will want to see it at some time during the six months that it will be in progress. Between the first of May and the first of November, 1901, there will be held in Buffalo a large number of conventions of different societies which will in themselves bring to the exposition a large number of visitors. The various steam transportation lines, and the International Traction company which controls the trolley lines of Buffalo and

its vicinity, are making extensive preparations to handle the great traffic, the International company expending \$3,000,000 in the improvement and extension of its lines. A large number of new hotels are being erected and several apartment houses are being transformed into hotels in anticipation of the great demand for accommodation next summer. Temporary structures to serve the purpose of hotels will also be built; and it is hoped that by all these precautions the problem of handling the great crowds who will attend the exposition will be satisfactorily solved.

"Persons who contemplate attending," says one paper, "need not fear that there will be any special difficulty in their obtaining accommodations during their stay, which will be comfortable and convenient at prices within reach of their means, and reasonable and just in view of the extraordinary demand for such accommodation."

One of the novelties of the exposition will be the village of the Six Nation Indians which is intended as an historical exhibit of the aboriginal people of the eastern part of the United States. The village will be surrounded by a stockade such as was built by the Indians in the olden times to protect the villages from the unexpected attack of the enemy. Within this stockade these descendants of the Red Men who once held sway over all that part of the country where the exposition is to be held, will live just as their ancestors lived several hundred years ago. Their dwellings will be "long houses" built of poles and covered with bark, and their meals will be prepared as the Indians of the Iroquois League used to cook them in times long since gone by.

Just outside the stockade will be several log cabins which will have association with Indian life. One of these will be made to represent a cabin of the white pioneers and another will be the identical log house in which Nancy Johnson, an aged Seneca squaw, and a member of one of the tribes of the Six Nations, has lived for the past century. This cabin was the oldest house on the Tonawanda Indian Reservation which is situated near Buffalo and the grounds of the exposition. It was taken apart and transported to the site of the Six Nations village, and set up just as it was before. It is in a clump of trees, where it looks as if it might have stood for an hundred years. In this cabin the venerable squaw who is

said by those who have examined the records to be 120 years of age, will live and receive her friends during the progress of the exposition. The rebuilding of the cabin has just been completed the work having been done by Seneca Indians from the Tonawanda Reservation. The cabin is composed of logs of red beech which were hewn in the forest after the close of the Revolutionary war. They are so well preserved that the cabin would doubtless stand for another half century. This cabin and the old lady who will live here will be one of the most unique historical attractions of the Pan-American exposition.

Another interesting feature of the coming exposition is the great electric tower which will attain a height of 375 feet. It will be ornamented by sculpture work reproduced in staff and will be painted in tints of ivory, blue, green and gold, and in white, presenting a most beautiful sight.

The fruit exhibit of the state of California, and especially of the southern end of the state, will be a very notable feature of the horticultural display.

A great many other exhibits, too numerous to mention, of great educational and advertising value will make the exposition attractive and instructive, and probably many of the residents of the eastern states who could not afford the cost of visiting the Chicago, Atlanta, and Paris expositions will find it in their way to enjoy this one nearer home.

PROPOSED EXHIBIT OF THE AGRICULTURAL AND HORTICULTURAL RESOURCES OF THE STATE OF MASSACHUSETTS.

AT THE PAN-AMERICAN EXPOSITION BUFFALO, N. Y., MAY 1ST TO NOVEMBER 1ST, 1901.

(1). An exhibit of the trees of Massachusetts, illustrated by three sections of each specimen, one cut perpendicularly, a second radially, and the third tangentially. The exhibit will consist of three sections each of 63 trees, the whole appropriately mounted on card-board. The sections of each specimen will be accompanied by two photographs, one showing the tree in leaf, the other, the naked trunk and branches.

(2). An exhibit illustrative of the development of horticulture. There will be three cases of some 25 or 30 specimens of the original fruit or vegetable, and then by its side the model of the perfected one.

(3). An exhibit of the entire spraying outfit for the gypsy moth and other injurious insects.

(4). An exhibit showing the effects of electricity on germination and growth.

(5). A series of 30 charts illustrating in graphic style by blocks of color, or by charts of figures, the following things.

(a) Area in proportion to total area in the several classes of farm lands, as for example, forest pasture, mowing, tillage.

(b) The same comparative with the United States and with selected states, as for example, New York, Pennsylvania, Illinois, Iowa.

(c). Product, in proportion to total acreage, of leading crops compared with the United States and selected states.

(d). Product per selected unit of population (say 100) of leading crops compared with United States and selected states.

(e). Product per acre of leading crops compared with United States and selected states.

(f). Orchards and fruits,—acreage,—proportion of total and of improved area compared with selected states.

(g). Orchard and fruit acreage to selected unit of population compared with selected states.

(h). Milch cows—number per acre of total area, of improved area, compared with United States and selected states.

(r) Milch cows—number of selected units of population compared with United States and with selected states.

(j). Dairy products—milk, butter, etc., compared in a similar way to (h) and (i).

(k). Hot-house products amount of unit compared with the United States and selected states.

(l). Cranberries, acreage, value and proportion.

(6). An exhibit will be made of the work of the Station in nematodes; and of the apparatus used in the educational work of the College in botanical study.

(a). A dozen or more samples of soils will be gathered from different portions of the state with an effort to get a soil typical of the section from which it is collected. Samples of lettuce, asparagus, tobacco and other market garden soils will be shown with maps of sections where these soils most abound.

In brief, the agricultural industries of Massachu-

setts consist of (1) Dairy products, (2) Fodder crops, (3) Dairy cattle, swine, etc., (4) Poultry and poultry products, (5) Market garden products, (6) Fruits.

With an illustrative exhibition in view, the aim will be to show in each one of these six departments the relative importance of that product to our department of the state of Massachusetts, comparing it with the United States and with other selected States.

Athletic Notes.

AGGIE, 10 ; VERMONT, 5.

Aggie defeated the University of Vermont football team on Saturday, October 27, at Atherton Park in Burlington. Aggie made her first score in the middle of the first half when Bodfish got the ball on Patterson's fumble, and carried it 35 yards for a touchdown. The second one came from a pretty 55 yard run by Chickering, who got the ball from Morse's kick from the 25-yard line after a touchback. Aggie's work in the first half was good, the game being played in a quick snappy manner, and the interference being invincible. Vermont fumbled badly in this half and was slow in getting down under kicks. Their tackling was very weak, the men going in too high and often being thrown off. The ends were drawn in several times by tricks. In the second half Vermont took a brace and aided by some fouls by Aggie scored a touchdown. The goal was in danger again at the close of the game, but Aggie secured the ball and could have rushed it back if time had not been called.

Vermont won the toss and took the west goal. Cooke kicked off to Robinson on the ten yard line. Then Vermont, by a series of rushes through the line and a run round McCobb's end, took the ball well into Aggie's territory only to lose it on Parker's fumble. Aggie then took the ball and by working the ends and tackles got the ball back to Vermont's 25 yard line where it was lost on downs. On the second play Patterson dropped the ball, Bodfish seized it and aided by splendid interference by Barry ran 35 yards for a touchdown. Barry failed at goal.

Waddell kicked off to the 5 yard line where Chickering got the ball and aided by strong blocking carried it to the center of the field. After a few plays Vermont got the ball, but could not gain which forced a

kick from Morse. On the next play Aggie worked a criss-cross and then Chickering ran 25 yards around the end which brought the ball into Vermont's territory. Here Cooke tried a goal from the field but fouled, Vermont getting a touch-back. Morse kicked from the 25 yard line. Chickering caught the ball and made a run down the left side of the field for a touchdown. Barry again failed at goal. A few more plays ended the half with the ball in Aggie's possession.

Waddell kicked off in the second half. Aggie advanced the ball about 25 yards, when the umpire took it away for a foul. Vermont could not gain on line plays but tried a quarter-back kick which brought the ball to Aggie's ten yard line. From this point the ball was rushed over the line. Hutchinson failed at goal. Cooke kicked off, Vermont worked the ball down the field aided by several fouls called by the umpire, but lost it on Aggie's five yard line. The game ended with the ball in Aggie's possession on the ten yard line. The line up:

AGGIE.

Bodfish, r. e.
Cooke, r. t.
Gamwell, r. g.
Paul, c.
Snell, l. g.
Halligan, l. t.
McCobb, r. e.
Whitman, q. b.
Barry, r. h. b.
Chickering, l. h. b.
Lewis, f. b.

VERMONT.

r. e., Morse (Capt.)
r. t., McKellow Phelps
r. g., Orton
c., Beckley
l. g., Parker
l. t., Waddell
r. e., Patterson
q. b., Robinson
r. h. b., Welch
l. h. b., Hutchinson
f. b., Strait

Umpire and referee—Rice and Page. Linesmen—Reed and Pierson. Timekeeper—Ritchie. Touchdowns—Chickering, Bodfish, Strait. Time—two 20 minute halves.

AGGIE, 17 ; CONN. AGRI'L COLLEGE, 6.

Aggie played her last home game with Conn. Agri'l college, Saturday, Nov. 3. The game was disappointing to us from a good many standpoints, since it proved that our team has not improved as it should have during the past week. The defense was not as strong as it should be, and the offensive play was very slow. The interference for end runs was as weak as water, the men running right by the tackles and never hitting a thing. The line was weak letting the Conn. men through at all points. The play was aided by numerous fumbles by the Conn. men as well as tricks which drew in the ends so that a winning score was possible.

Conn. won the toss and defended the south goal. Aggie kicked off and Conn. rushed the ball back down the field by means of line plunges. On Aggie's fifteen yard line they hit the ball but Aggie could not gain and was forced to kick. Conn. again rushed the ball down the field and succeeded in pushing it over after ten minutes of play.

Aggie kicked off to Conn. and held them for downs then rushed the ball across the line for a touchdown, working Conn. with line plays and end runs. Conn. kicked off to Aggie, the ball was again rushed up the field and finally scored again on a quarter-back kick.

In the second half Aggie held the ball for the greater part of the time, but on reaching Conn. three yard line could not push the ball over. Cooke fell back and kicked the first goal from the field that has been scored in any of our games this season. The game ended with the ball in Aggie's possession on the Conn. 15 yard line.

The line-up :

M. A. C.	C. A. C.
O'Hearn, l. e.	r. e., Blakeslee
Halligan, l. t.	r. t., Carpenter (capt)
Snell, l. g.	r. g., Clark
Paul, c.	c., Baleatt
Garnwell, r. g.	l. g., Harvey
Cooke (capt), r. t.	l. t., Twing
Bodfish, r. e.	l. e., Downing
Whitman, q. b.	q. b., Osmond
Chickering, l. h. b.	r. h. b., McLean
Barry, r. h. b.	l. h. b., Lyman
Lewis, f. b.	f. b., A. N. Clark

Score, M. A. C. 17, C. A. C. 6. Touchdowns, Lyman, Lewis, Whitman. Goals from touchdowns, Barry 2, Clark. Goal from field, Cooke. Umpire, Knowles. Referee, Halligan. Linesmen, Gates and Smith. Time 20m. halves.

Intercollegiate.

Yale's total registration shows a slight falling off this year.

Harvard has but two hundred and thirteen scholars for her three thousand or more students.

Electives at Tufts are to be more closely restricted in the future. The number of prescribed studies will soon be increased about twenty per cent.

The agreement whereby Harvard agreed to play the University of Pennsylvania each season in football has

been dissolved. How much the McCracken incident may have had to do with this is uncertain.

An athletic league of the Maine colleges, Bates, Bowdoin, Colby and University of Maine has been talked of, but Bowdoin has refused to enter, alleging tendencies toward professionalism on the part of some of the other colleges.

The highest football score reported so far this season is 84 to 0, made by Georgetown University against Richmond College. Probably the highest in this vicinity is 72 to 0 made by Cushing Academy against Vermont Academy.

There are about four hundred collegiate institutions in this country representing between one and two hundred thousand students. In almost every one there has been an increase in numbers during the past year and in many the increase has been very marked.

Students of the University of Chicago recently showed the right sort of college spirit. The football team returned from Philadelphia after the most disastrous defeat in the history of the university, to be met by the students and treated almost as a victorious eleven.

Compulsory gymnasium drill for the Senior class at Amherst College has been abolished by a unanimous vote of the faculty. Considering the high value Amherst affect to set on gymnasium drills, it will be of interest to note how many Seniors take the course now that it is elective.

Harvard and M. I. T. indulged in one of their semi-occasional scraps the night of the Republican parade in Boston. Harvard attempted to drive some of the Tech men off the steps of their own building and a lively rush resulted. Harvard came out as she deserved—second best.

The current number of the Connecticut Agricultural College *Lookout* contains an instructive article on "Student Labor" in the various colleges. Connecticut is the only college in the country where compulsory labor without remuneration is still insisted upon. The amount and quality of the work done there determines to quite an extent the rank of the student. At the other Agricultural colleges of the country, labor is paid for and furnished as a means of giving aid to needy students.

COMMUNICATION.

NORTHAMPTON, MASS., OCT. 27, 1900.

CAPT. JOHN ANDERSON,

MASS. AGRICULTURAL COLLEGE,

AMHERST, MASS.

Dear Sir:—The Republican City Committee beg that you will accept for yourself and tender to the men in your company our very hearty thanks for your courtesy in taking part in our demonstration last night, and our appreciation for the fine showing that you made.

We fear that the committee in charge, in their anxiety to show your organization to as many of our people as possible, may have lengthened the line of march unduly and made this town seem bigger to some of your people than they ever thought it was before. Be assured that we shall consider our obligation to you undischarged for a long time, and that you may command us and our resources to their limit.

Yours very sincerely,

ERNEST W. HARDY, Chairman.

TO ALUMNI.

(Communication.)

The work of our foot-ball team this season has been a source of the greatest gratification to all those who are connected with the college: undergraduates, faculty, and local alumni. Our single disappointment, the Trinity game, has been more than made up for by the victory over the strong Vermont eleven, which, the week before, had played Dartmouth's best team to a standstill. This, too, after a tiresome journey of over two hundred miles to the home grounds of our opponents.

I would now, on no other ground than that of my interest in the college as one of its graduates, submit to non-resident alumni the circumstances under which these results have been attained. The football association found itself, at the opening of the season hampered with a debt of some \$140, incurred by poor management of the base ball association. This, according to the rules of the Athletic Board, had to be paid before operations could go on. Upon the opening of college the undergraduates voted a tax of \$3.50 per man and enough was paid in on the first day to meet this debt. With the further proceeds of this tax, together with a very liberal subscription by

the faculty, we were able to employ a coach for a short time and, by close calculation, will meet the other ordinary expenses of the season.

There still remains to be played what has come to be the climax of our football season, the game with Amherst College, on Nov. 17. At our sister institution three first-class coaches, old Harvard players, have been employed this year through the aid of the alumni and everything possible has been done to turn out a strong team. To any Aggie graduate, having in mind the results of the past two years' games, the object of these extraordinary efforts will not be entirely obscure. In spite of this it is a conservative opinion that with more coaching from now on Aggie can put the better team on the field. With some outside help this can be done. A personal appeal to a few alumni has already received a generous response but with the matter of an athletic field soon to come up it does not seem wise to make a general solicitation of this nature. This statement is therefore made in order that all who desire to show their interest in the college in a practical way may avail themselves of a most opportune time for doing so.

RALPH E. SMITH, '94.

Sec. and Treas. M. A. C. Athletic Board.

THE NATURAL HISTORY CLUB.

A TRIP TO MT. HOLYOKE.

On Saturday, Nov. 3, instead of the trip to the asbestos mine in Pelham which had been planned but which it was thought best to postpone, a few of the Club went to Mt. Holyoke, taking the electric car to Old Hadley and walking from there to the mountain. The ascent was made on the river side by means of a zigzag path which winds up the slope not far from the covered cable-car track. Although the climb was a toilsome one the effort was more than offset by the grand view, obtained from the summit, of the hills to the north and west, the fertile fields of Hadley, and a long stretch of the Connecticut river. A slight mist in the atmosphere rather enhanced than spoiled the view. Evidences of glacial action were found in three or four places. On the south side of the mountain house in a pit preserved by a retaining wall, when the rest of the surrounding rock was covered with a suitable grass soil, is a mass of polished rock with here and there a deep groove furrowed out of the

solid mass. In one place there appeared to be a number of smaller striæ, parallel furrows scraped out of the rock which all about was worn as smooth almost as a mirror. The rock at this particular point was more smoothly polished than at any other place, so far as was discovered. On the northern side of the summit house were found two or three other remarkable troughs one of which was very pronounced and deep. Other indications which the presence of the more indisputable traces tended only to strengthen were noticed. The general direction of all striæ was only a few degrees from a north and south course. These striæ were probably made, according to Dana, by the main glacier which covered New England. According to the same authority there are marks to be found in the valley which have a direction south-southeast and which point to the existence of what he pleases to call a separate Connecticut River glacier which although a part of the main glacier was nevertheless compelled by the contour of the valley to take a separate course. No marks which seemed to have been made by this separate glacier on Mt. Holyoke were found by the members of the company. The party arrived in Amherst shortly after noon, and all report an enjoyable time.

At a recent meeting of the executive committee of the Club two sub-committees were chosen, one of which is to arrange a programme for the meetings of the Club during the winter, the other is to arrange for a series of lectures which it is hoped the society may be able to arrange for the winter months.

MASSACHUSETTS AGRICULTURAL COL- LEGE CLUB OF NEW YORK.

Concluded.

Class of 1879.

Edgar D. Chittenden, Bridgeport, Conn.

Class of 1880.

Willis W. Cary, Fishkill, N. Y.

Alvan L. Fowler, 119 Mercer St., New York City.

Class of 1881.

Charles L. Flint, 25 Congress St., Boston, Mass.

Austin Peters, D. V. S., M. C. V. S., Commonwealth Bldg., Boston, Mass.

Edward B. Rawson, 226 E 6th St., New York City.

Ben. S. Smith, 32 Nassau St., New York City.

Clarence D. Warner, 1114 Pine St., St. Louis, Mo.
Charles E. Young, M. D., White Plains, N. Y.

Class of 1882.

Charles E. Beach, West Hartford, Conn.

Harry K. Chase, 426 West Broadway, New York City.

John A. Cutter, M. D., 120 Broadway, New York City.

Samuel J. Holmes, 167 Chambers St., New York City.

Edward S. Jones, 824 Main St., Worcester, Mass.

Burton A. Kinney, with Knowlton & Beach, Rochester, N. Y.

Herbert Myrick, Springfield, Mass.

James B. Paige, D. V. S., Prof. of Veterinary Science, Amherst, Mass.

Charles B. Perkins, 132 Commercial St., Boston, Mass.

John C. Platt, 333 Fourth Ave., New York City.

James S. Williams, Glastonbury, Conn.

Class of 1883.

Alfred A. Hevia, 155 Broadway, New York City.

Joseph B. Lindsey, Ph. D., Chemist Experiment Station, Amherst, Mass.

Class of 1884

Elisha A. Jones, Farm Superintendent, M. A. C., Amherst, Mass.

Alfred W. Lublin, 56 Bedford St., Boston, Mass.

Class of 1885.

George H. Barber, M.D., U. S. N., Washington, D. C.

Albert H. Chadbourne, 912 Hanson Bldg., Philadelphia, Penn.

Hezekiah Howell, Monroe, N. Y.

Benoni Tekirian, Turkey in Asia.

George G. Woodhull, Bainbridge, Ga.

Class of 1886.

Winfield Ayres, M. D., 112 West 94th St., New York City.

William A. Eaton, Nyack, N. Y.

George E. Stone, Ph. D., Professor of Botany, Amherst, Mass.

Class of 1887.

Frederick C. Allen, 17-19 Vanderwater St., New York City.

Edward R. Flint, Ph. D., Clifton, Mass.

Class of 1889.

Frederick R. Huse, 95 Blackstone St., Boston, Mass.

Class of 1892.

George B. Willard, Waltham, Mass.

Class of 1893.

Charles A. Goodrich, M. D., Hartford, Conn.

Class of 1894.

Louis E. Goessmann, Bridgeport, Conn.

Class of 1896.

Frederick H. Read, Woonsocket, R. I.

Class of 1897,

Charles I. Goessmann, Amherst, Mass.

Class of 1898.

Julian S. Eaton, Nyack, N. Y.

College Notes.

—The AGGIE LIFE Board sat for photographs Wednesday.

—Shaffrath, '01, has been ill for a few days, but is now recovered.

—There was no drill on Monday because of the trip to Springfield.

—O'Hearn, 1903, has returned to College after a prolonged vacation.

—R. W. Morse, 1902, spent Monday in Brattleboro, Vermont on business,

—Tinker, '03, has been called home because of the sickness of his mother.

—Members of the Y. M. C. A. are gathering each evening at 6-30 for prayers.

—Inspection of dormitories was omitted on the 27th because of the Northampton parade.

—Prof. Hasbrouck has returned to his classes after a very much lengthened stay at his home.

—Fire drill has been arranged and officers appointed. Major Dickerman is in command.

—The Seniors have finished the first three chapters of Pettit's "Elements of Military Science."

—Our foot-ball victory over the University of Vermont of 10 to 5 was both pleasing and encouraging.

—The "second team" played a very unsatisfactory game with Holyoke High school, the score being 0-0.

—The Union Lecture course began with a musical entertainment and a large audience Wednesday night.

—The sophomore's rope decorations indicate the result of the Freshman-Sophomore annual tug-of-war.

—The foot-ball team did not practice Wednesday afternoon that the men might see the Amherst-Tufts game.

—Professor C. S. Walker preached in the church at Hadley Sunday, exchanging with Rev. E. E. Keedy.

—The Freshmen lined up against the Juniors Friday afternoon. The result was 6 to 0 in favor of the Juniors.

—Allen, 1903, entertained his parents over Sunday recently. Griffin, 1904, also enjoyed a short visit from his father.

—Prof. Maynard spent several days last week in Cromwell, Conn., looking over the greenhouses of A. N. Pierson's new plant.

—Dr. Wellington gave an address before the Grange on Friday, Nov. 2. His subject was "The Education of the Farmer's Boy."

—Professor Churchill of Amherst college gave a talk Friday evening, November 2nd, before the members of the Shakespearean Club, on the tragedy of Richard III.

—The battalion took part in a parade at Springfield, Monday evening. Supper was served at four o'clock, the men leaving on the 5-14 train and returning shortly after mid-night.

—President Goodell and Professor Brooks represented this College at the inauguration of Dr. Henry S. Pritchett, the new president at M. I. T. The ceremony took place at Worcester on Oct. 25.

—A much needed operation has been performed on the chapel organ. It has been tuned and generally overhauled. This will be gladly learned by those coming under the rule of compulsory morning exercises.

—On account of the short afternoons for the next two weeks football practice on drill days will be before drill. The hour of assembly have been changed from 3-30 to 4 to accommodate the new arrangement.

—Professor Hart of Harvard University and Congressman Gillett addressed the members of the Amherst College Republican club, and the invited public Wednesday evening, Oct. 31st in College hall on the issues of the presidential campaign.

—Three companies, numbering seventy-five men, marched in the republican parade in Northampton Friday night. Major Dickerman commanded. The parade was a success, having a line of march of about six miles and containing many novel and interesting features. Our position was directly in rear of the band.

—A debating society has been organized with the following named officers: President, Thomas Casey; secretary, James H. Chickering. A debate has been arranged for Wednesday, November 7th; subject, Resolved, That the cut system of the Massachusetts Agricultural College is a just system. W. W. Peebles and H. J. Franklin for the affirmative; F. W. Webster and M. H. West for the negative. Meeting will be held at 7-30.

—Two live rattlesnakes were recently received by W. R. Pierson, 1901, from a friend in Connecticut. They were presented to the Zoölogical department of the College and are now on exhibition in the Zoölogical laboratory. The creatures are confined in a glass cage covered with heavy wire screen cloth which no one has yet been courageous enough to sit on. They will be kept alive for some time but will finally go to increase the collection in the museum. They were sent by express and marked with the horrid title of "Rattlesnakes." Of course the company seal was unnecessary, and the box arrived unopened, showing no signs of having been tampered with.

HYGIENE FOR COLLEGIANS.—I. FOOD.

BY JOHN ASHBURTON CUTTER, M. D., President of the Mass. Agr'l College Club of New York.

In this article I wish to treat briefly of some of our more common foods such as air, water, beef, lamb, mutton, wheat, potato, oatmeal, spinach, butter, etc., and of their effect on the system.

The direct feeding for the intellect that comes through the Faculty is another province.

Air is our first food in life and our last. Its importance as food is too little estimated. Students work in a room in the evenings with lamps or gas burning, stove or steam heat, windows closed, and wonder why at half past nine or ten o'clock, it is so hard to close up the matter on hand; why does not that German translation work out? what is the trouble

with this problem in trigonometry? The real cause is forgotten, and the victim of carbonic acid gas only flounders along. Now, be it even in the middle of the winter, to open the window and blow out the poisonous gases in the room, will hurt no one. The pure air will bring refreshment and will clear the intellect, resulting in happy solutions of the intricate problems on hand. Do not be afraid of fresh air.

The necessity of the use of good water for drink is now engrossing the attention of the thinking public; the examinations of samples of water by local and State Boards of Health, and the work done by the Agricultural Experiment Stations have been productive of much good. Typhoid fever does not kill as it used to; sink drains are no longer emptied from a kitchen within ten feet of wells as in years only too recent.

Man is seventy-five per cent. water; every tissue contains it. Many chronic diseases are ameliorated by the addition or increase of good water to the dietary. But there are waters to be avoided. All carbonated drinks are evil. They only add to the troubles, so prevalent among Americans, the results of the fermentation of starches and sugar into carbonic acid gas, alcohol and vinegar, which goes on in the stomach. Physicians have logically traced death, occurring in bed in the early morning hours, to the free use of carbonated drinks at a banquet of the night before. Carbonic acid gas by osmosis through the stomach and pericardium, paralyses the heart more or less, and heart failure sometimes results.

Avoid, moreover, waters with salines. The various brands on the market to-day, some of which are loaded up as high as half an ounce of salts to the gallon, are of positive injury to the drinker. It is common for such waters to be drunk for stone in the kidney; they effectually dissolve the particular chemical form of concretion existing, but then go on to deposit one of their own formula; the condition resulting is worse than the first. It is best to advise the use of natural spring waters which contain not more than ten grains of salts to the gallon. The less of such salts the better. This leads to a consideration of distilled water. Much has been said of late in both scientific and other papers concerning the alleged dangers of drinking distilled water. My personal experience is that it does not destroy epithelia of stomach, as is claimed; my own supply of water in my house is dis-

tilled, but it is aerated. Distilled water, without aeration of the distillate by dropping through the air, is not pleasant drinking. Aerated distilled water is pleasant to the palate, and is the best solvent of concretions in any form in the body that we know of, because it is neutral and leaves no stone of its own behind.

Our athletes going abroad suffer from the change of water; why not carry their own stills and, wherever they are, distill from the local product. I believe that there would be less breaking down of contestants who have had to leave their natural habitat. While I am writing for supposedly healthy individuals, let me say that asthma, rheumatism, gall stones, calculi in the kidneys, bladder, and intestines, are all forms of gravel diseases. It is well in youth to use good water and be better prepared for old age, than to wait till disaster has come and the need of repair is great with chances of cure greatly diminished.

Beef is man's prime food from the animal kingdom and is elaborated by the ox from hay, grass, oats and other vegetables, which man should not eat. It relishes better than all other foods; on it, with water, man can live alone, that is, if properly cooked. It does not produce rheumatism or gout but instead is used in the treatment of these affections successfully. It is employed as the foundation of treatment of many chronic diseases. The beef-fed nations are the healthiest—are the freest from germ diseases, and have the greatest endurance and courage.

Beef should never be eaten raw; it is best cooked by roasting or broiling—boiling and frying are not as good methods. These statements may provoke argument. I cannot here go into the facts back of them; suffice it to say, that they are based on the study of hundreds of people whose blood and other fluids have been assiduously studied microscopically, while applying the ordinary tests that obtain in the practice of clinical medicine. Beef was made by the Creator to be freely eaten by man, and is his best friend among the foods, excepting water.

Mutton comes next with its younger brother lamb; the dark meat of turkey, fowl or game are more nourishing than light meats. Oysters, fish, shell fish have their place but subsidiary to meats. They cannot be lived on indefinitely as foods with water alone.

Dyspepsia has been noted as an American ailment;

I have seen in fourteen years of practice but four cases of beef dyspepsia; while the number resulting from fish, eggs, and vegetable food, are legion.

Eggs should be eaten fresh. Strangely the ordinary conception is that the yolk is the more digestible of the two parts of the egg; this is not so; the whites dropped in boiling water and cooked moderately hard are well borne by the most delicate stomach; while the yolks if excessively eaten by the well, will produce cystinic rheumatism, characterized in the blood morphology by crystals marked with St. George's cross, and most excruciating pain.

This is not saying that the yolks of eggs should not be eaten; I am but stating what they can do with some individuals when excessively fed.

Wheat is man's prime food from the vegetable kingdom: the Roman soldier ate it raw and was a good fighter. It is given to man to-day in many forms and rightly deserves its high place.

Oatmeal is good for horses and cattle, also good for doctors whose pockets it helps keep filled. The Scotch live in spite of it—those that do not die in childhood. It produces effective forms of cystinic rheumatism. It has cursed many a student, who impoverished in funds, has subsisted on oatmeal and thereby laid the foundation for future ills which have clung to him more or less closely through life. Chemically it is a good food; morphologically it is not and it gives the bowels severe problems in digestion. To-day the preparations on the market are somewhat better prepared as they have been cooked—at least that is what is claimed. But it is much easier for mankind to feed the oats to the horse and ox and use their energy and beef.

Potato is not a great nourisher—apparently has a place as a filler. Needs good cooking.

Spinach is a fine food for many, agreeing well, especially with the liver.

Celery is borne generally by all.

Squash, Turnip, Carrots, Parsnips, are vegetables to be used as relishes.

Milk and Butter. Two prime foods of the human race. Yet in the adult few can bear milk—this because of its ability to absorb germs from the atmosphere causing thereby fermentation and biliousness. Butter is sometimes not well borne. But it is of all fat foods the best.

In subsequent papers I hope to further communicate with LIFE's readers on Fruits, Tea, Coffee and Tobacco and on Exercise and Baths.

LIBRARY NOTES.

An attempt is being made to get a copy of the history of every town and city in Massachusetts. Many have already been secured. Every student should make it a point to see that the library is presented with a history of his native town or city.

Essays in English Literature by George Saintsbury. These essays are devoted to the period between the years 1780 and 1860, they seem to fill in the literary map of the period and are full of references, implied if not expressed, to other periods. Such men as Southey, Thomas Hood, Scott, Coleridge, and others perhaps not so well known, are taken as subjects; the historical novel as presented by different authors is also discussed, and English war songs by Cambell and Songs of the Crimean War are made the subjects of interesting essays.

Color in Nature by Marion I. Newbigin. This is a study in biology and is an attempt to set forth in systematic order the main facts known in regard to the Pigments and Colours of plants and animals. Most objects, whether animate or inanimate, present themselves to our eyes as coloured, as it is absurd to separate the phenomena of colour as they appear in organisms from the similar phenomena of inorganic nature. Colour and markings often exhibit extraordinary constancy; they often tend to reappear in slightly modified forms in a large series of nearly related organisms. This constancy of colour, or marking, is not infrequently available for the purpose of classification. The subjects considered are so important that the book is exceedingly valuable for any student of biology. The book is well written but lacks illustrations.

Elementary Meteorology by Frank Waldo, late junior professor in the United States Signal Service. Meteorology is now recognized as an independent science. During the past twenty years much that is new has been learned. For many hundreds of years the more apparent atmospheric conditions have been the subject of observation and comment, but it is only in the past two or three centuries that accurate observations and trustworthy records have been accumu-

lated. The book was intended, originally, to serve as a text-book of the elements of the science for general students. The English system of measurements is given as is necessary for a book that is intended for use in our educational institutions. The definitions are very simple and clear, and the maps and illustrations are also very good.

A Study in Warwickshire Dialect by Appleton Morgan. This is the fourth edition and contains a glossary and notes concerning the Edward the Sixth Grammar Schools and the Elizabethan pronunciation as deduced from the puns in Shakespeare's plays, and as to influence which may have shaped the Shakespearean vocabulary. The author first discusses the environment, then takes up the glossary and the way Shakespeare heard his English pronounced in London. The work is especially valuable for students of old English, the glossary being perhaps the best part of it. The author is a thorough student of Shakespeare and one who is qualified, if any one can be said to be, to write upon this subject.

In the Tiger Jungle, and other stories of missionary work among the Telugus of India, by Rev. Jacob Chamberlain. This book is a good proof that young people need not patronize the dime novel to find stirring adventure and thrilling narrative. The author of this book was for many years a missionary in India and has an ability to make even a commonplace story interesting. The titles of the chapters give us an idea as to the character of the book and engage the attention of every reader. *In the Tiger Jungle*, *Encounter with a Ten-foot Serpent*, *Treated with a Shower of Stones*, are good examples.

THE GIRL NEXT DOOR.

I am slow but the World is fast,

And I dote on rest and peace.

So I drew away from the dizzy pall,

And bade for a life of ease.

I'm in love with the girl next door,

Though I never have seen her face,

But I know by the way she carries her head,

She is filled with a dainty grace.

It is fifty steps or more

To that house across the lawn,

And I mean each day to make a call,

Then I wait till each day is gone.

I have sat and watched the house,
I have seen a flitting form,
And my sluggish blood for once is stirred
With a feeling rich and warm.

I have seen her at the door,
Or under the apple tree,
But I lose the look on the unseen face,
That has grown so dear to me.

She is like the girl of a dream,
Distinct, yet so obscure;
Her distant face has an oval shape
And it's honest and good I'm sure.

She's just the girl for me,
I think of it more and more,
I'll get my man to wheel me across
To propose to the girl next door.

I've seen the girl next door;
She's fifty if she's a year,
I didn't propose, for I never could stand
To have that woman near.

I'll live my life alone,
Just as I did before;
And you'd better believe I'll never propose
To the servant girl next door.

C. L. F. P.

Alumni.

The fifteenth annual banquet of the Massachusetts Agricultural College club of New York will take place at the Hotel St. Dennis, Broadway and 4th Sts., Friday evening, December 7th, at 6-30 o'clock.

'88.—Viscount Y. Mishima is farming at 5 Shuruda Kzabukar, Tokio, Japan.

'89.—Married, Oct. 4, 1900, Dwight L. Hubbard to Miss Florence Cummings of Chelmsford. They will reside at No 74 Elmira St., Brighton, Mass.

'90.—F. J. Smith of Elizabeth, N. S., has become the father of a son, born Oct. 28.

'90.—F. J. Mossman formerly assistant chemist in the department of foods and feeding, Hatch Experimentation station is now a fruit grower in Westminster, Mass.

'90.—C. H. Jones of Burlington, Vt., is visiting at his home, Dower's Grove, Ill.

'91.—The next reunion of the class will be held at the next commencement. The wives of the members of the class will be invited to the banquet.

'91.—Class secretary, Frank L. Arnold, with Bowker Fertilizer Company, Elizabeth, N. J.

'00.—Y. H. Canto, Medical student at Columbia University. Address 314 West 58 St., New York.

'00.—J. W. Kellogg has been appointed assistant chemist in the division of foods and feeding, Hatch Experiment station.

'00.—F. H. Brown has returned from his vacation to his duties at the Hatch Experiment station.

'00.—H. L. Crane has returned from a trip to the Pierson homestead at Cromwell, Conn., where he has been studying greenhouse construction.

'00.—F. G. Stanley of Harvard Medical school, resides at Chestnut Hill Reservoir, Newton, Mass.

Ex-'01.—C. Winthrop Jones is now with Meekins, Packard & Wheat of Springfield.

The alumni soliciting committee of the College Y. M. C. A. wish to thank those alumni who have contributed for the support of the organization.

L. C. CLAFLIN, Editor-in-Chief.

R. W. MORSE, Business Manager.

THE "INDEX,"

(VOLUME XXXII)

PUBLISHED ANNUALLY BY THE JUNIOR CLASS.

TO THE PUBLIC:—We wish to announce that the Year Book of the Class of 1902 is being compiled and that time, thought, work, and money are not being spared to make the XXXII Volume of the *Index* an accurate summary of the past college year and the mouthpiece of college thought and sentiment; as well as an ornament and a credit to our college.

To interest in the 1902 *Index* all who are interested in "Old Aggie" is the hope of

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Editorials.

The LIFE understands that still further improvements are to be made in the Drill Hall. It is rumored that the college authorities contemplate having the floor planed smooth, and repolished, thus making our Hall one of the finest dancing floors in this part of the country. The wood from which this floor was made must have been very dry when put in for it soon swelled to a permanent size and warped slightly at the same time. If the floor is put in perfect order the warping will probably never occur again. The LIFE would suggest a change in the system of lighting. If two arc-lights were put in the place of the many incandescent lights, we are confident the running expenses would be reduced while the lighting capacity would be greatly increased. Capt. Anderson has already succeeded in establishing improvements in the Drill Hall, and the LIFE wishes him all success in his application for these further benefits.

The preparation of charts to illustrate the agricultural and horticultural industries of Massachusetts at the Pan-American exposition has brought to notice many interesting facts concerning the agricultural status of our state when compared with that of other states. In many cases the comparison is a very favorable one for Massachusetts. We are not accustomed to think of our commonwealth as one engaged primarily with agricultural interests; we would rather consider her as a manufacturing state. For this reason we are prone to overlook the fact that she holds a place of considerable importance in the agriculture of the country, that in proportion to her size she occupies a very prominent place in certain branches of agricultural and horticultural pursuits, and that she is busy in trying to solve many of the most important problems of the day. We wish to refer the reader to an article in this number entitled, "Massachusetts as an Agricultural State."

OUR football season has closed for the year 1900.

With the Amherst game on Saturday last, unsatisfactory though it was, one of our most successful football seasons was brought to an end. What shall we say of this season's work? What most fitting comment can we make concerning the importance of our reasonable success on the oval during the three months just gone? It seems better wisdom to view the season's work as a whole than to measure the importance of the final result by any one game. Some may be inclined to think that our defeat by Amherst takes away the credit of other victories. Such an opinion, if it be held, is certainly a narrow one. Defeats in football never detract from what has been done, but only from what might have been done; and crying over them is like crying over spilled milk. Lamenting inexcusable errors is quite natural. The point is not that such lamenting is justifiable because natural, but rather that we may rightfully take pride in what we have done that remains and always will remain to our credit. Football teams have their "ups and downs," combinations of circumstances, often more uncertain in team work than in individual work, are what we have to reckon with, and while we should not make an open concession of this truth now, did there remain any more games to be played, yet with the end of the season the fact must be conceded. The only way, of course, to prepare for emergencies is by hard, consistent practice to make uncertainty less certain and certainty more nearly sure. We are not to judge, because out of ten games we have won but five, that we have not done anything creditably in those contests. With the exception of the Trinity and Amherst games, in both of which the plain fact is that our team did not play as they might have played, we have succeeded very well, especially in the games with the University of Vermont and with Williams. On the whole, the team has reflected credit on the college; has met the schedule which our football manager arranged in a very gratifying way. We have demonstrated that with our small number of students we can put the M. A. C. football team in most adverse circumstances, and can win the day or come off with honor. The LIFE extends congratulations to the team for the season's work.

Amherst has arranged a course of lectures for the high school teachers of the vicinity.

NEWSPAPER WORK AT "AGGIE."

It is probably not very widely known that newspaper work at "Aggie" began in the early years of the life of our College with the most active and arduous kind of journalism, that of editing part of the local town newspaper; but to the first class which was graduated from the Massachusetts Agricultural College came this by no means easy task. In the Amherst *Record* of Oct. 26th, 1870, we find the following published under the heading, "The College and Its Department:"

"Through the kindness of the publishers of the *Record*, the College has the pleasure of being represented for the first time in a department of that newspaper placed under her control. For this opportunity the College is very thankful. The great success that the institution has met with in the three years it has been in operation has won for it a place of honor beside the educational institutions of the State, while the little that (the College) has done for agriculture and education shows conclusively that it is a valuable auxiliary to the Commonwealth, (and one) with which she could not easily dispense. In view of this it seems appropriate that the College should have some means of presenting to the public her interests and of rendering herself more useful. The College was founded for the express purpose of benefiting agriculture and the mechanic arts and in order for her to do so, successfully, she not only must educate her pupils in the various branches of science but must disseminate, as far as possible, throughout the community the same knowledge that she is imparting to her students. By so doing she could more fully accomplish the work for which she was designed. As aiding in this respect this department has been established and it is hoped that it will be of great service to the institution."

Such was the open declaration of six young men who, representing the student body of the College, underlook the editing of four columns of the Amherst *Record*. The task was not an easy one. Energy and ingenuity were severely tasked to meet each week the responsibility that devolved upon their shoulders. No sooner were the trials of one week ended than those of another began. However, there is no doubt but that as time went on the task grew easier and easier, comparatively at least; and that

less anxiety was felt as experience worked its inevitable effect. Neither is there any doubt but that those harassed editors felt more than once with the poet that rejoicing over what has been well done to-day is better than worrying over the future or the unprofitable past. The day of satisfaction following the successful accomplishment of the week's work undoubtedly seemed at the time but very short-lived when compared with the interminable weeks of hard, dogged work; but when looked back upon in subsequent years, through that perspective which time alone gives and through which is seen the incalculable good which that hard training accomplished, those bright days grow even brighter, and overshadow the gloomier ones, or color them with their brighter hues.

In speaking of those times Mr. Bowker, who was one of the first editors says: "I ran across a copy of this double-headed* paper a year ago and was struck with the audacity of the undertaking. Although I was not ashamed of the work; but I am bound to admit that the editorial "blue pencil," either of Professor Parker, or of the editor of the *Record*, was used fearlessly and as we thought at the time, outrageously. I cannot understand, either, how the publisher of the *Record* was willing to give up half of his front page to a lot of M. A. C. students, especially when the paper circulated all over town, and was as much the local organ of the old college as of the new. Neither can I understand how our faculty permitted us to undertake the work and expose ourselves, and perhaps the college, to criticism. However, we had those invaluable qualities in the beginning of one's career, the courage and enthusiasm of youth, which enabled us to carry through the undertaking. It was splendid discipline, and the best part of it was the necessity of doing it every week, and not only in term time but throughout the vacation. We kept up the department during our last year, but I assure you we were glad to release the honor to our successors, who finally abandoned it. There is no drill in English composition like that of newspaper work. Personally I have found my experience in connection with newspapers, beginning with the Amherst

Record, of invaluable service to me in the conduct of my business, particularly in the advertising department. When one has written an article, had it set up in cold type and then read the proof before it is corrected, he begins to realize how little he knows of his own language, and the cussedness of the printer's devil."

The editors declared their intention of devoting a good deal of the space in their columns to the departments of the College, with particular attention to the agricultural. It was proposed to answer from time to time through the columns of the paper, questions concerning agriculture and the College itself. Inquiries were solicited, and the support of the students and the faculty was earnestly requested. The introductory article then closed with these words: "Hoping that it may become a permanent and useful feature of the College we present our first number to the public."

The work of editing then went on, the editors closely adhering to the policy which they had mapped out. Articles appeared in each issue pertinent to agricultural topics of the day. A definite amount of space was reserved for college notes, while more important happenings received the attention that was due them. There was a column headed "Colleges" in some issues which gave information gathered from different sources concerning other colleges. Such subjects as "Chemical Fertilizers," "Relation of Science to Agriculture," "Shall I Send my Farmer Boy to College," "Soils," "Hints to Farmers," are good examples of articles on agricultural subjects. Now and then, of course, the pressure of time or circumstance, or of both, may be detected; but on the whole the work was excellent.

In the spring of 1871 a new board took control. The sub-heading was reduced in size to cover the width of only one column, but the number of columns remained the same. The paper was continued up to the close of the college year when the plan was abandoned. Such is the history of newspaper work as first attempted by students at M. A. C.

In subsequent years an eight page sheet, known as "The Register", was published at Commencement. It boasted no literary pretensions but simply aimed at giving a little data concerning college life and the alumni. "The Cycle" and "Q. T. V. Quarterly," society organs, have been published from early years up

*The paper had for a sub-heading over four columns appropriated for the use of the College the following: Massachusetts Agricultural college, edited by senior class, editors, W. H. Bowker, Wm. Wheeler, S. H. Richmond, L. B. Caswell, G. C. Woolson, W. C. Ware.

to the present time, but it was not until 1890 that the students brought out a representative publication. Oct. 1st, 1890, the AGGIE LIFE was born.

In the opening editorial of the first issue we find a statement of the editors concerning what should be the policy of the paper under their management. With reference to advancing the interests of the college they wrote in part: "To accomplish this (that at which they aimed) we shall record all matters of general interest concerning the college and the alumni." In the ten years which have elapsed since the paper was started the general policy has been as first outlined.

The first editors certainly looked at the matter from the right point of view. The more faithfully the paper adheres to the idea which its title conveys the more interesting is it bound to be for those for whom it was brought into being. Those things which make a paper a necessity, which make the students and alumni reluctant to give it up, are what should first be considered. To furnish information concerning "Aggie" life should be the primary object of AGGIE LIFE.

MASSACHUSETTS AS AN AGRICULTURAL STATE.

It is obvious that Massachusetts is a manufacturing state, yet its agricultural interests are so far-reaching and well developed, that it holds a high rank as an agricultural state. A comparison with the agricultural standing of the United States and other selected states, gives most interesting results which are in no sense derogatory to Massachusetts. A comparison of farm land, acre for acre, with the United States, New York, Illinois, Ohio, and other great agricultural states gives Massachusetts an enviable position in the agricultural world. It shows that a farmer with a moderate capital can make a better financial success in Massachusetts than in any other state.

Let us, for example, take the potato crop of Massachusetts, comparing it with the whole United States. Since 1860 Massachusetts has, on an average, produced from 90 to 125 bushels of potatoes per acre, being 25 per cent. more per acre, than the whole United States during that period. And in value per acre Massachusetts has led by nearly 50 per cent.

Compared with the states of New York, Illinois, and Ohio, the averages are in about the same ratio.

Another example is the corn crop. In number and values per acre, Massachusetts leads by 10 per cent. the product and values of either the United States or the states used in the former comparison. During the five years preceeding 1890, the average number of bushels per acre for Massachusetts were thirty-nine and thirty hundredths against twenty-five and sixty-four hundredths for the United States. During the same period the value in Massachusetts, per acre, was \$23.90, while for the United States it only reached the sum of \$8.50, showing a balance of \$15.15 for Massachusetts; and the value of rye and oats are more than 45 per cent. higher than of the United States.

In the entire product of the United States, Massachusetts plays a comparatively small part; but when averages, acre by acre, are considered Massachusetts leads in all the important crops. Tobacco yields from one to five hundred pounds per acre more than any other state and commands a higher price in the market, than any other domestic production, not excepting Tennessee or Kentucky. The dairying and horticultural interests of Massachusetts are enormous. The value of dairy products alone, in 1895 being about seventeen millions of dollars; ninety-three million gallons of milk being sold. And the cranberry crop has a yearly value of over a million dollars. Farm wages are higher, and the farm-hand better paid than in other states. The valuation of farm buildings is also relatively higher than in other states.

The primary cause of the successful and even flourishing agricultural condition of Massachusetts, is readily traced to the following fact: That the average farmer of this state is better educated and more intelligent than the average farmer of other states.

Educated and skilled farm labor is just as necessary for the successful and profitable production of crops, as the skilled mechanic is necessary for the construction of a steam-engine. Massachusetts is noted for its educational institutions; its public schools colleges, and universities. Scarcely a village is there which does not boast a high school or academy. With these facilities for the dispersion of knowledge and the training of the youth, it is small wonder that Massachusetts leads the nation in the percentage of

rural education and intelligence. The Massachusetts farmer knows how and when to take advantage of soil and climatic conditions, and by careful and painstaking experiments has raised the soil to a high state of productiveness.

A factor in the production is the natural richness of the soil. Prehistoric glaciers and rivers covered the central and western part of the state with a deposit of rich loam. Add to this the scientific use of fertilizers and valuable crops are a foregone conclusion.

The protecting forests of the northern states, Maine, Vermont and New Hampshire, make the valley of the Connecticut warm and fertile and render possible the production of tobacco and grapes of the first quality and of the best variety.

Railroads play an important part in crop values. Fresh and early vegetables and field crops secure the highest prices, and by use of the railroads the farmer's products reach an early market and are thus assured of a high and satisfactory price.

Another important consideration is the aid given the farmer by the State Government. Dangerous and contagious diseases among cattle, injurious insects, obnoxious pests of all kinds, and bad roads, are all under the supervision of competent commissions, appointed by the State authorities. They are thus taken care of, with no extra expense or loss to the farmer.

In conclusion let us sum up the salient points of our discussion. First: Massachusetts is the best state in which to locate, if the farmer possess only a moderate income. Secondly: Massachusetts leads in average amount and values per acre of the leading crops. Thirdly: Formable soil and climatic conditions, the superior intelligence of the farmers, beneficial railroad systems, and protection of agricultural interests by the state, make these conditions possible.

With all this evidence in favor of Massachusetts why heed Horace Greeley when he says, "Go West, young man, go West?"

Reports are frequent that the new football rules, especially that which prohibits coaching from the side-lines, are being openly evaded by some of the leading college teams. Still more stringent regulations seem to be called for.

Athletic Notes.

AGGIE, 18; W. P. I., 0.

On Saturday, Nov. 10, Aggie defeated Worcester Tech. on the Worcester Oval. The day was cold and windy which caused a good deal of fumbling on the part of our men, but notwithstanding these facts our team played a snappy game which our opponents were unable to check. At no time during the game were the Worcester men able to hold Aggie for downs, and only once did Aggie fail to hold Worcester. Although our men were slightly heavier they outplayed the Worcester men by their scientific team work. Halligan having a sprained ankle was unable to play but his place was well taken by Pierson, who played a good game both on the defensive and offensive. His running with the ball was exceptionally good.

Belden filled Barry's place at right half, the latter being laid up with a bad knee. Belden rushed the ball well but his defensive work was not quite so good.

Lewis at fullback played a very good game both on the defensive and offensive. His long gains made through the line were one of the features of the game.

Snell was once more in his old place at guard. Although his ankle was rather weak he played a very strong defensive game often breaking through and tackling the runner for a loss.

The game opened with Aggie defending the east goal. Spencer kicked off to Whitman who fumbled, the ball rolling to our four yard line where O'Hearn fell on it. From here, by continual line plunges and end runs, Aggie carried the ball to Worcester's 20-yard line where the ball was fumbled and Worcester obtained possession of it, but was held for downs. With the ball once more in their possession Aggie soon scored her first touchdown. Cooke kicked goal.

Spencer then kicked off to Cooke who brought the ball back to the 35-yard line. After exchanging hands several times on fumbles, Lewis of Aggie carried the ball over the line for our second touchdown. Cooke kicked goal.

Spencer then kicked off to Lewis who carried the ball back about twenty yards. With the ball on Worcester's 10-yard line the first half ended. Score, 12-0.

In the second half Cooke kicked off to Rylands who brought the ball back about fifteen yards. After several rushes, Worcester not being able to gain the required distance, the ball went to Aggie.

Aggie soon had the ball on Worcester's 5-yard line when Lewis carried over for our third and last touch-down. Cooke kicked goal. Spencer kicked off to Whitman who with careful dodging carried the ball through Worcester's team to center of field. After a few rushes time was called with the ball on Worcester's 15-yard line. The features of the game were the playing of O'Hearn, Bodfish and Lewis for Aggie, and Ryland and Spencer for Worcester. The summary:

AGGIE.

O'Hearn, l. e.

Pierson, l. t.

Snell, l. g.

Paul, c.

Gamwell, r. g.

Cooke, r. t.

Bodfish, r. e.

Whitman, q. b.

Chickering, l. h. b.

Belden, r. h. b.

Lewis, f. b.

W. P. T.

r. e., Norcross

r. t., Walsh

r. g., Merriam

c., Perkins

l. g., Philbrooks

l. t., Bundage

l. e., Maynard

q. b., Spencer

r. h. b., Thrower

r. h. b., Rylands

f. b., Schumann

Score—Aggie, 18. Touchdowns—Lewis, 3. Goals from touchdowns—Cooke 3. Umpire—S. C. Willis, Worcester. Referee—V. A. Gates, M. A. C. Time—15 and 10 minute halves.

AGGIE, 0; AMHERST, 18.

Aggie closed her season last Saturday, playing Amherst on Pratt Field. The field was a swamp, making fast play impossible and neither side could make long gains. Amherst had the advantage in weight, and a cool head on the side lines to run the plays. She played well but not fast; her interference was very strong.

Aggie played a fairly strong game part of the time but was very erratic. Her backs were slow in starting and in the first half seemed to be troubled with a bad attack of stage-fright. In the second half Aggie did better but was clearly out-played and out-generated. Both sides did some costly fumbling.

Aggie kicked off to Amherst's 35-yard line, and Morse advanced five yards. After short gains and a fumble Amherst punted to Whitman. Aggie fumbled the first play and Amherst again worked the line for short gains. Amherst was caught offside and holding

the ball and lost ten yards. Aggie could not gain but lost the ball on downs. Short gains were made through the line, Cooke being finally sent over for a touch-down. Phillips kicked the goal.

Aggie kicked off to Amherst's 15-yard line. The ball was advanced fifteen yards. A series of line plays netted Amherst fifteen yards more and then she was forced to kick. Whitman received the kick and advanced the ball five yards. Aggie could not gain and punted. Amherst made ten yards and was forced to punt. Aggie was unable to gain and returned the kick. Amherst took a brace and made several yards to be held for downs on Aggie's 12-yard line.

Aggie worked Ballantine's end for fifteen yards with a double pass. She continued to make steady gains until about thirty yards had been covered when one of the backs fumbled. Amherst made steady gains only to lose the ball on Aggie's 1-yard line. Cooke fell back for a kick. Ballantine broke through and blocked getting the ball for a touchdown. Phillips kicked the goal.

Aggie kicked to Amherst who could not gain but kicked; the half ended with the ball in Aggie's possession at the center of the field.

In the second half Aggie took a decided brace. Amherst kicked off to Whitman who advanced the ball ten yards. Gamwell was sent through the line for five yards. Barry, O'Hearn and Cooke advanced the ball. Amherst's fumbled and lost ten yards, bringing the ball on Amherst 35-yard line. O'Hearn tried a drop kick but failed. Amherst kicked to Whitman and several kicks were exchanged. Aggie pushed the ball to Amherst's 10-yard line only to lose it on downs. Amherst kicked, and aided by luck got the ball to Aggie's 10-yard line from which Shay went over for the third touchdown. Phillips kicked the goal.

Aggie kicked off to Amherst who made repeated gains through the line now greatly weakened by the loss of Halligan and Snell. The game ended with the ball in the center of the field.

For Aggie Barry played a star game while Cooke and O'Hearn also deserve mention. For Amherst Shay was easily the star, he and Cook making the most gains. The line-up.

AGGIE.

O'Hearn, l. e.

Halligan, Pierson, l. t.

AMHERST.

l. e., Anderson

l. t., Cook

Snell, Franklin, l. g.
Paul, c.
Gamwell, r. g.
Cooke, r. t.
Bodfish, r. e.
Whitman, q. b.
Chickering, l. h. b.
Barry, r. h. b.
Lewis, f. b.

l. g., Varnum
c., Howard
r. g., Burke
r. t., Morse
s. e., Ballantine
q. b., Daniels
l. h. b., Shay
r. h. b., Wiggins
f. b., Phillips

Score—Amherst 18, Aggie 0. Touchdowns—Cook, Ballantine Shay. Goals—Phillips 3. Linesmen—Patrick, Amherst, Gates, Aggie. Referee—Newell of Harvard. Umpire—Berdsell of Harvard. Timekeeper—Wilson, Aggie. Time—25-minute halves.

A MUSEUM.

The simple exhibition of specimens is not the main purpose of a modern museum. Nowadays, the arrangement of a museum follows out a carefully designed plan; not unlike that of a well-ordered reference library, with each thing in its proper place. The arrangement may be compared to that of the materials of a book which, in all but paper and cover, a museum really is; and the comparison is more nearly true if the scope of the plan embraces but one department of scientific inquiry. Our larger museums, such as the Cambridge museum, may be appropriately compared with a composite natural science text-book, the different sub-titles and the texts under these titles being quite separate and distinct in themselves, and yet having that broad relationship which obtains in the whole domain of natural science. A further similarity between a book and a museum is to be seen in the object of each, which should be to furnish coherent information concerning that of which it treats. While a museum must often be incomplete with regard to details, and accordingly not well suited to furnish alone a complete education in what it illustrates, it, nevertheless, is an indispensable adjunct to scientific research and to teaching; it is in substance the best possible means of illustrating the text of all scientific book-lore.

Was it not the great French naturalist, Cuvier, of whom it was said that he was a famous naturalist before he left the museum for the field? Indeed, the educational value of a natural history museum cannot be over-estimated. Its plan should be to give a connected history of the plant and animal life of our globe from the earliest ages to the present time in so

far as material will permit; its aim should be to illustrate in the most effective way the succession, or at least, the relative importance and position, of the different orders of life. A museum is then eminently suggestive. The visitor, having his attention properly directed at the start, can read for himself much that is illustrative of the history and progress of life upon our globe.

CONSTITUTION OF THE M. A. C. FORENSIC CLUB.

ARTICLE I.

Sec. 1. This organization shall be known as the M. A. C. Forensic Club.

Sec. 2. The object of this Club shall be to cultivate the art of speaking in public.

ARTICLE II.

Sec. 1. All members of the Massachusetts Agricultural college in good and regular standing, who have completed one term's work in said institution, are eligible to membership in this Club.

Sec. 2. Any person to become a member of this Club must receive a two-thirds vote of the members present at a regular meeting.

Sec. 3. A person to become a member of this Club must pay the regular admission fee.

ARTICLE III.

Sec. 1. The officers of this Club shall be as follows: a president, to be chosen from the senior class; two vice-presidents, to be chosen from the junior and sophomore classes respectively; and a secretary and treasurer.

Sec. 2. Nominations for the officers of this Club shall be by informal ballot.

Sec. 3. The duties of the president shall be to preside at all meetings.

Sec. 4. The duty of the vice-presidents shall be to preside at meetings in the absence of the president.

Sec. 5. The duties of the secretary and treasurer shall be to keep a faithful account of the proceedings of all meetings and post a notice of said meetings at least six hours before the time on which the meeting is to take place, to notify the members who are to serve on committees, and to collect all dues and pay all bills.

ARTICLE IV.

The meetings of this organization shall be held every Wednesday evening, unless otherwise changed by a two-thirds vote of the members present at a previous meeting.

ARTICLE V.

All amendments to this Constitution shall be submitted in writing at a regular meeting at least one week before the time on which it is to be acted upon.

College Notes.

—Sawin, 1904, has moved to No. 13 South College.

—Proulx, 1903, is rooming with Tower in 12 South College.

—Mr. Petit's dancing class meets to-night at 7-30 in Grange Hall.

—The pond froze Friday night and remained covered with ice all day Saturday.

—Our game with Worcester Tech. resulted in a score of 18-0 in favor of "Aggies."

—Dr. W. E. Stone presented a paper at the New Haven convention of agricultural colleges.

—The junior class will give some time to reading a Shakespearean drama with Prof. Mills.

—The glee club is to take part in a concert, given by Mrs. Sanderson at North Amherst on December 4th.

—Both Monday's and Tuesday's drill hours were used for obtaining photographs of the battalion and band.

—Mr. Dusten of Amherst college gave a very interesting talk before our Y. M. C. A. on Thursday evening.

—The Seniors' hour with Capt. Anderson was cancelled on Friday that they might view the football practice.

—Emery, '95, of Brown has assisted in training and coaching the football team during the last week's practice.

—Professor Lull spoke to the class in Comparative Anatomy of Amherst college Monday on "Dinosaurs."

—Professor Babson has moved from his rooms over the bank to the house of Professor Richardson on Faculty St.

—Thursday's drill was cancelled in order that the time might be used to advantage by the football eleven and second team.

—The Natural History society visited the asbestos mine in Pelham on Saturday. The party was accompanied by Profs. Smith and Howard.

—Pres't Goodell spent the past week in New Haven attending the annual convention of American agricultural colleges and experiment stations.

—Beginning Monday, Nov. 19th, the former hours for drill were resumed. Drill will now be at 3-30 on the afternoons of Monday, Tuesday and Thursday.

—The freshmen played a lively game of football with South Hadley High school eleven on the campus, Wednesday afternoon. The score was 11-0 in favor of the freshmen.

—A football game which always creates much excitement is that of the freshmen and sophomore classes. For several years past the sophomore eleven has come off successful.

—A presidential salute of 21 rounds was given on the common by the artillery squad the night following election. A battalion was also formed which gave some rifle salutes. The cannon used was the steel, 3 inch field piece.

—President Worstman and Professor Ladd, of the Chemical department of the North Dakota State college, spent Friday in Amherst. They had come East to attend the annual convention of American agricultural colleges, held at New Haven last week.

—Professor Babson gave an illustrated talk entitled "Europe" before the members of the Shakespearean club on Friday evening, Nov. 9th. The views thrown on the curtain were taken by Professor Babson with his own camera while on his trip through Europe.

—The class of 1903 has elected the following men to act as a board of editors for the 1903 *Index*. They have the sympathy as well as the good wishes of the present board whose efforts are about to come forth. Editor-in-chief, Monahan; business manager, Barrus; assistant, Brooks; artist, Tinker; literary, Franklin and Jones; statistics, Bacon and Snell.

—Professor Woodward of the University of California spent two or three days of last week in Amherst. He spoke on Friday afternoon before the members of the Entomological classes and others interested in Entomology on the subject of the "Venation of Insect Wings."

—The military department made preparations for a recitation on the campus at 8-15 the other morning by placing the furniture, charts, etc., on the ground near the goal-posts. To everyone's disappointment, doctors included, the plans had to be changed for various reasons, and two worthy sophomores returned the things to their places.

—The debate arranged for last Wednesday was necessarily postponed and will take place to-night. Subject, "Resolved, that the cut system of the Massachusetts Agricultural College is a just system;" H. M. Cheever, H. J. Franklin for the affirmative; F. W. Webster, M. H. West for the negative. The following debate has been arranged for Tuesday evening, Nov. 27th. Subject, "Resolved, that a single gold standard is for the best interests of the United States;" N. D. Whitman, R. W. Morse for the affirmative; J. Barry, H. L. Knight for the negative.

—At a meeting of the debating club Friday evening a constitution, drafted by a committee appointed at a previous meeting, was presented and accepted. The constitution having been ratified by the members present, a permanent organization was formed by the election of the following-named officers: President, Thomas Casey; vice presidents, R. W. Morse and M. H. West; secretary and treasurer, James H. Chickering. An executive committee consisting of T. Casey, C. E. Gordon, H. L. Knight, and M. H. West was appointed to draw up by-laws for the society.

—The Insectary has recently added to its equipment some new photographic apparatus. An enlarging, reducing and copying camera with extension hood, and a Dallenger Rapid Rectilinear lens have been purchased for the photography of insects and their work, the enlarging power of the camera being greatly increased by the use of the hood. A Premo camera for field work is also a part of the equipment, and by its use the work of insects out of doors on a large scale may be photographed. The entire equipment in this line is as complete as can be found anywhere

in connection with experiment stations and was purchased after a careful study of the uses to which it was to be put, and an examination of those in use for similar purposes elsewhere.

—An interesting experiment soon to be undertaken at the Experiment Station will be the determination of the influence on plant growth of variation from the normal of the electric potential in the atmosphere. By maintaining, as far as is possible, uniform light, heat, and moisture conditions, and by eliminating all influences but that of electricity, it is hoped by means of a very sensitive electro meter to read the effects of electric potential on the growth of plants. Research along this particular line, the effect of electric atmospheric potential, is quite new. Any new ideas will be valuable in view of the widely prevailing effect of atmosphere on vegetable growth and the importance of unexplained plant life phenomena. The experiment will be conducted by Mr. Monahan, under the supervision of Dr. Stone.

MEETING OF THE AMERICAN ASSOCIATION OF AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS.

The fourteenth annual convention of this Association was held at New Haven, Conn., Tuesday, Wednesday and Thursday of last week. Over a hundred and fifty delegates were present, coming from all parts of the country, the Mass. Agricultural college being represented by President Goodell, and Profs. Stone, Brooks and H. T. Fernald.

At the Tuesday morning session reports from the various committees and sections were given, that from the executive committee being of chief interest. In the reports from sections, the establishment of a chair of entomology at M. A. C. was highly commended as being a step in the right direction and most creditable to the college.

Following these reports the association listened to the first of a series of three lectures by Dr. Bernard Dyer of England, on Experimentation at Rothamstead, given in accordance with the provisions accompanying the establishment of a fund for the purpose of sending a lecturer to this country to present the subject of Agricultural investigations in England to the association.

The afternoon was devoted to meetings of the various sections. In entomology the subject of "Nursery Inspection" was discussed at length by delegates from all parts of the United States. In Botany and Horticulture the relation of "Plant Physiology to Agriculture and Horticulture," and other topics were presented; while in the section on Agriculture and Chemistry co-operation between stations and farmers was under consideration.

In the evening the association assembled to hear the presidential address given by Dr. J. E. Stubbs of Nevada, on "Ethical Values Fundamental in the Ideas and Ideals of Modern Education, followed" by the second Rothampstead lecture. Wednesday, by vote of the association, was spent at Middletown, this being the twenty-fifth anniversary of the establishment of Middletown experiment station—the first to be established in the United States. After a brief examination of the buildings of Wesleyan University and in particular of the room in which the first experimental work was done and of the Respiration Calorimeter, the convention assembled in Memorial Chapel, where it was addressed by Dr. W. H. Jordan of Geneva, New York on the subject; "American Experiment Stations," and by Dr. W. O. Atwater of Middletown, Conn., on the subject, "The Connecticut Experiment Station." This was followed by what was termed a lunch but which proved to be an excellent dinner, served in the Fayerweather Gymnasium. The afternoon was devoted to meetings of the various sections and to a most pleasant reception at the home of Prof. Atwater after which the delegates returned to New Haven in time for the evening session. This was occupied by general business and by an able memorial address on Senator Justin S. Morrill, by Pres. Geo. W. Atherton of the Pennsylvania state college.

At the Thursday morning session after attending to committee reports, and miscellaneous business, the third Rothampstead lecture was given by Dr. Dyer. The afternoon was occupied by section meetings while at the evening session final reports of committees and the closing business of the convention consumed the time of the delegates. The convention was a great success, both in the attendance which was unusually large, and the quality of the papers and addresses.

The following-named officers were elected for the ensuing year: President, Prof. A. W. Harris of

Orono, Me.; vice-presidents, Prof. James H. Paterson of Lexington, Ky., Prof. W. H. Jordan of Geneva, N. Y., Prof. L. G. Carpenter of Fort Collins, Col., and Prof. A. E. Bryan of Pullman, Wash.; executive committee, President H. H. Goodell of Massachusetts agricultural college of Amherst, President Joseph E. Strubbs, Nevada agricultural college, Reno, Nev., Prof. Alexis Cope of Ohio state college, Columbus, O., Prof. George W. Atherton of state college, Pennsylvania, and Prof. H. C. White of Georgia state college, Athens, Ga.; bibliographer, Prof. A. C. True of Washington, D. C.; secretary and treasurer, Prof. E. B. Voorhees of New Brunswick, N. J.

Intercollegiate.

John D. Rockefeller has given \$100,000 to the psychological laboratory of Columbia University.

A number of scientific lectures will be delivered during the winter months at the University of Pennsylvania.

The students and faculty of M. I. T. have come to an agreement by which cane rushing will be abolished at "Tech."

The first Hebrew letter fraternity in the United States was recently organized at the Bible college of the University of Kentucky.

The main building of Virginia college at Roanoke, Virginia, was recently burned to the ground. No lives were lost but there were many narrow escapes and the property loss is over \$100,000.

In order to defray the expenses of their college course, two students of Johns Hopkins and Baltimore medical recently stole four pounds of platinum valued at over \$1200 from the Chemical laboratory of Johns Hopkins.

An interesting interclass contest at M. I. T. is what is known as the cane spree. It is held on the day of the Sophomore-Freshmen football game and cane-rush. One man from each of the lower classes is chosen for the light-weight, middle-weight, and heavy-weight contests. The rival contestants then take hold of a cane and strive for five minutes to obtain sole possession of it. Where the men are evenly matched the contest is very exciting.

Brown has decided to restrict her electives in the future more than she has done in the past. Elective courses rather than elective studies will hereafter be offered. This seems to be the prevailing tendency of educational institutions at present.

The annual cane rush at the Massachusetts Institute of Technology had a sad ending, one of the Freshmen being killed. The victim had played in the football game just before the rush and was in poor physical condition. The rush lasted fifteen minutes and at the end of that time, he was found dead. Two others were also seriously injured.

A counterpart of the historic E. Benjamin Andrews incident at Brown a few years ago occurred recently in the dismissal from Leland Stanford Jr. University of Dr. Ross, one of the oldest and most esteemed professors of the institution. The cause was a difference of opinion over a political topic with Mrs. Stanford, whose course is being violently criticised all over the country as inimical to free speech.

LIBRARY NOTES.

The library is now in possession of the histories of the following cities and towns of Massachusetts :

Amherst, Woburn, Milford, Medford, Pelham, Worcester, Oxford, Salem, Hadley, Quincy and New Braintree, Tewksbury, Newbury, Sutton, Marlborough, Dunstable, Lowell, Bradford, Newton, Natick, Essex, Fitchburg 2 volumes, Plymouth, Springfield, Pittsfield 2 volumes, Abington, Framingham, Great Barrington, Palmer, Spencer, Clinton, Worthington, Easthampton, Gardner, Medway, Rockport, Douglas, Leicester and Malden.

Besides these, which are strictly histories of towns and cities, there is a history of Western Massachusetts and accounts of anniversaries which some of the older towns have celebrated. The histories all date from the beginning of each town's existence but some have been written for quite a number of years. Owing to the fact that many different writers have been concerned in making up these books a great variety in style of writing is noticed.

"*The Naval Monument*" by A. Bowen, containing official and other accounts of all the battles fought between the navies of the United States and Great Britain during the Revolutionary War; and also an account of the war with Algiers. This book was pub-

lished in the year 1830 but since it has but lately been presented to the library and probably but very few people are familiar with it, this account may not be out of place. At the time of the publication of this book the recent war was fresh in everybody's memory and the world had as yet not ceased to wonder at the strength and bravery of the men who had won their freedom from Great Britain and established a nation which was destined to be second to none. The author has nothing but praise and admiration for our navy. The book contains illustrations of the most important naval battles of the war.

"*A National History of the British Lepidoptera*" by J. W. Tutt. This is primarily a text-book for students and collectors and is published in two volumes. Although essentially a book on British Lepidoptera it ought to have an interest for other than purely British Lepidopterists. The descriptions of each super-family cover the whole fauna included in the super-family and thus should be of general use to all students of these families. The book is purely scientific and is well written; the descriptions, although necessarily containing many technical words, are very clear.

"*The Fishes of North and Middle America*," by David Starr Jordan and Barton Warren Evermann. Perhaps this may be more properly considered as a descriptive catalogue of the species of fish-like vertebrates found in the waters of North America, North of the Isthmus of Panama. It is in four volumes and issued in the form of a bulletin from the United States National Museum. Part I includes from Branchiostomathidae to Priacanthidae, Part II, Lutjanidae to Cephalicanthidae. Part III, Callionymidae to Ogocephalidae and Part IV completes the catalogue. The book is thoroughly illustrated.

Alumni.

The fifteenth annual banquet of the Massachusetts Agricultural College Club of New York will take place at the Hotel St. Dennis, Broadway and 14th Sts., Friday evening, December 7th, at 6-30 o'clock.

'71.—R. W. Lyman was in town recently.

'78.—President J. H. Washburne and Professor A. A. Brigham represented the Rhode Island State College at the New Haven convention.

'81.—J. L. Hills, director of the Vermont Experiment station, attended the convention of American Agricultural colleges at New Haven.

'82.—We are pleased to record the birth of a son to Mr. and Mrs. M. B. Kingman of Amherst.

'83.—We take great pleasure in announcing that Chas. H. Preston has been elected to the Legislature from his district which is made up of three towns. We are much pleased by his success in the caucus which nominated him for this position, as he received within five of a majority of the total vote cast, notwithstanding the fact that there were two other candidates in the caucus.

'88.—H. C. Bliss recently returned from a trip to California, stopping a few days in Amherst to visit friends at the College, and also at Northampton, before returning to his home in Attleboro.

'89.—Director B. L. Hartwell of the Rhode Island Experiment station attended the convention of state colleges.

Ex-'90.—November 7th John B. Maynard married to Miss Grace Bachelder of Boston; at home after January 1st, 52 Falmouth St., Boston.

'92.—We are pleased to announce that Francis G. Stockbridge is to be married on Nov. 22 to Miss May Elizabeth Morrison of Harrison, N. Y.

'92.—E. B. Holland has gone as delegate to the conference of Economic Chemists held at Washington, D. C.

'94.—A. C. Curtis is master in English and History at St. Austin's school, West New Brighton, New York.

'96.—Married Oct. 31, at Bearsville, N. Y., Mr. Newton Shultis to Miss Blanche Van de Bogert, daughter of Mr. and Mrs. H. P. Van de Bogert. At home, after Dec. 15, at 71 Walnut St., Winchester, Mass.

'96.—B. K. Jones has resigned his position as assistant chemist in the department of foods and feeding, Hatch Experiment station, to accept a similar position in the Utah Experiment station, Logan, Utah.

'96.—H. C. Burrington was in town a short time ago and was much interested in seeing our football team defeat Storrs.

'96.—A son has been born to Mr. and Mrs. H. H. Roper of South Manchester.

'96.—E. W. Poole, Draftsman with Z. B. Davis,

Contractor and Builder, New Bedford, Mass. P. O. Box 129.

'97.—At an Institute held at Wellsboro, Pa., Oct. 29,—Nov. 2, Prof. Clayton F. Palmer of the Mansfield Normal School gave a talk on "Phases of Nature Study."

'97.—C. A. Peters addressed the Chemical club of Yale University Nov. 10, upon his recent work entitled "The Volumetric Estimation of Copper as the Oxalate, with Separations from Cadmium, Arsenic, Iron, Tin and Zinc."

'99.—F. A. Merrill, tutor for instruction of "Tech." boys, St. Botolph St., Boston.

'00.—F. G. Stanley's address is No. 39 Lanark Road, Brookline, Mass., and not Chestnut Hill, Reservoir, Newton, as published in last issue.

Ex-'00.—A. L. March was in town recently.

L. C. CLAFLIN, Editor-in-Chief.

R. W. MORSE, Business Manager.

THE "INDEX,"

(VOLUME XXXII)

PUBLISHED ANNUALLY BY THE JUNIOR CLASS.

TO THE PUBLIC:—We wish to announce that the Year Book of the Class of 1902 is being compiled and that time, thought, work, and money are not being spared to make the XXXII Volume of the *Index* an accurate summary of the past college year and the mouthpiece of college thought and sentiment; as well as an ornament and a credit to our college.

To interest in the 1902 *Index* all who are interested in "Old Aggie" is the hope of

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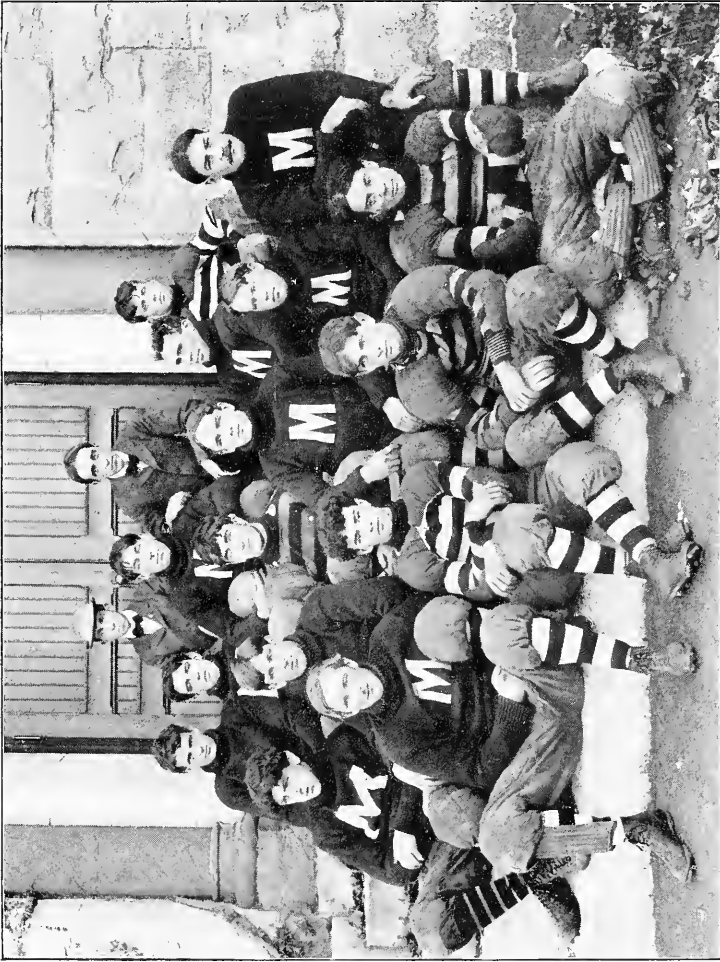
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Editorials.

ANNOUNCEMENT.

BELIEVING that there is a general misunderstanding concerning the mission of our agricultural colleges, the editors of the *Life* have deemed it not inexpedient to publish a little information concerning the scope of study offered at the Massachusetts Agricultural College. With this purpose in view this issue has been brought out, that those who have only a superficial knowledge of the college, may learn more about what the State is providing in the way of a broad and liberal education for her young men. We wish to acknowledge our indebtedness to the several departments for contributing information concerning the aim and scope of each. We solicit the attention of all those for whom this issue was designed, and trust that the plan may accomplish what the editors had in view.

THERE is perhaps no further need to speak of the

necessity for better provision for our athletic sports. The conditions which call for an enclosed field are still before us, and are well known to those from whom the students most expect assistance. It seems to us that now is a very opportune time to take up the matter and carry the whole plan through. The students are trying to do their part towards making such a field an absolute necessity. The greater the necessity, becomes the greater should be the willingness to support a plan for meeting it. The conditions which call for an enclosed field, as it happens, are those which likewise reflect credit on the college; the necessity and the honor both result from our progress in athletics. It is true that a failure to make anything of athletics might be considered grounds for demanding some such provision as an enclosed field; for then it could probably be justly claimed that on account of the excessive tax and the difficulty in raising the necessary money it was impossible to do anything in athletic sports. This difficulty was encountered but was overcome; not without a great deal of inconvenience, how-

ever, and we think it to the credit of the students and those who so liberally contributed to student enterprises that the difficulty was overcome. But if the necessity for an athletic field is to be measured by our success or failure in athletic work it seems to us that, on the face of it, a petition made on the ground of our success is more to the point and more likely to insure substantial response than is a plea made on the ground that because we have such a difficult task in obtaining money we have not been able to do anything creditable. Therefore, it is because we have met with very creditable success in foot-ball during the last three years, and because one of our most successful seasons, considered as a whole, has just passed, that we wish to again bring this trite but most pertinent subject to the attention of all those interested in athletics at M. A. C. With a proper enclosed athletic field it is more than probable that the college can accomplish more in baseball and track athletics than has been the case in the past. The conditions prevailing then and now are well known to all who have been willing to look the matter squarely in the face.

AGRICULTURAL TRAINING AND A BROAD EDUCATION.

THE COURSE OF STUDY AT THE MASSACHUSETTS AGRICULTURAL COLLEGE.

In Roman mythology we find that it was Ceres, sister of the king of the gods, who represented the art of husbandry. Is it not a significant fact in the light of the early Roman history that the goddess of the Roman mythology, who presided over agriculture, was sister of the great Jupiter, he who, from his throne on Mount Olympus, "the reputed seat eternal of the gods," summoned them to counsel? In addition to what mythology suggests as to the value placed upon agriculture by the early Romans, history teaches us that they loved the pursuit of agriculture, and that the noblest minds of the empire were attracted to the occupation of tilling the soil. Earlier even than the days when the Roman Empire flourished we find the occupation of agriculture taking a rank of first importance in the yet more ancient civilization of Egypt and Babylonia; and in the centuries since the great Empire has ceased to be wherever we have seen or now see evidences of a prosperous and enlightened civilization, we find the pursuit of agriculture occupy-

ing a high and honored place. The Sacacens and the Moors in Spain "carried the art to a height which perhaps has never been surpassed in Europe," and to-day over all Europe, the science is engaging the attention of the most progressive and enlightened men.

The vast territory of the United States with its boundless resources offers an immense field for industrial enterprise, and year after year sees the science and practice of agriculture gaining in importance in this country. The extent of the land now under tillage and the large percentage of the population of the United States engaged in agricultural pursuits is very significant. The rapid strides made throughout the South and West, the importance and extent of agricultural enterprise in these great sections of our country, the vast resources still available and still untouched, and the great enterprises under discussion for making fertile the great arid belt of the western plains, all these and a hundred other striking facts stand witness to the present and growing needs of agriculture.

Though we would fain think of Massachusetts as primarily a manufacturing state, we must concede that she holds an important place in agriculture. In Massachusetts there are not to be found the great resources which belong to the western states, but there has been a necessity to provide for a large and prosperous working population, such as one would naturally find in a large manufacturing state and this necessity has developed agricultural interests at home. As early as 1792, a society was formed in Massachusetts, the object of which was to promote agricultural interests in the state. Since then the Agricultural College has been founded, agricultural societies have been organized, experiment stations have been established, and all possible means have been employed to meet the manifold problems that present themselves upon all sides as the needs of the times demand solution of the them.

Thus, scientific training in agriculture has become as important as the same training in the mechanic arts. "Make your student a master-farmer, a master-mechanic; but make him a master-man." The farmer of to-day cannot proceed along the same lines as the farmer of a century ago. Things have changed, and the new order demands trained men. The spirit of the age is a scientific one; it is a spirit of inquiry. Why should it not manifest itself in agriculture? How

to improve and benefit man's condition is the underlying idea, and wherever this bold and progressive spirit makes its way, we see improvement follow. Bold and careful thinkers are daily engaged with problems, the solution of which means a great deal to us in providing for our comfort and well-being, and in no branch of scientific research are there problems involving our well-being more important than those which confront him who would engage in one of the manifold branches of agriculture science. Can anyone point out a wider field for observation than that which is afforded in the study of the soil, the forest, the climate, or of animate nature, the birds, insects and animals. There is no wider field, nor one which calls for greater discipline and training.

To learn to observe and to observe accurately, to think and to think accurately, and to apply one's knowledge to the best advantage should be the earnest wish and aim of everyone who takes up a scientific calling or any calling. The time has come when the derived signification of the word *agriculture* must be heeded before its primary meaning; the mind must be cultivated and trained to observe, to think, and to reason before the cultivation of the soil is undertaken. It would be very desirable if the manual training could be acquired at the same time as the training of the mind—and it is presumed that the earnest student would secure that training as opportunity offered—but above all he should try to master the principles of the science, he should train his mind to guide his hand; in brief, he should try to become the "master-man," and to be a master is impossible except as careful thinking directs and guides.

The time was very recent when the word *agriculture* had but one signification. A man who set out to get an agricultural training and to follow an agricultural calling intended to become a farmer. People believed that to be the end and aim of agricultural training. To a certain extent they were right in their belief. Primarily the agricultural schools had that grand and noble purpose in view; but to-day the term *agriculture* has a great deal broader signification than it had a quarter of a century ago, and it is not too much to say that by the majority of people, especially those whose knowledge of the purpose and scope of agricultural education is only incidental, this wider signification is but little understood, if at all. It must,

however, be obvious to any one who will give the matter a little thought that at the present day no broad and comprehensive science can progress, except as the problems that are constantly springing up are carefully investigated with a view to their solution. What must be the necessary result? Various departments of research will be established and their importance must inevitably lead to specialization in each. It is in this way only that the most satisfactory progress can be made; that the best results may be obtained. To illustrate we may cite the study of physics: its four great divisions are heat, light, sound, and electricity. In agriculture we find a very similar division into different departments of inquiry: *Agriculture* proper; first and foremost, to which the other branches are subsidiary and essential; *horticulture*, a general term for important occupations of market gardening, fruit culture, floriculture, landscape gardening, forestry, etc.; *botany*, which comprises plant physiology and pathology; *entomology* which treats of insects and their economic importance, an importance which is growing every day; *zoölogy* which furnishes a knowledge of animal life and structure and lays the foundation for veterinary training, so important to the farmer; *agricultural chemistry* of first importance to the farmer teaching him how to conserve manures so commonly wasted, and how to properly feed his stock for their health and his profit; *veterinary*, instructing in the care of farm animals and in the prevention of disease.

All these are departments in which there are opportunities for endless investigation. Specialization is therefore absolutely necessary. But it is not only in research that the specialization is seen. There is a great demand for men trained as specialists in all these lines. Large numbers of men and women are yearly graduated for work in forestry. Landscape gardening is now an important profession. Agricultural chemists are taking highly remunerative positions all over the country in departments of experiment station work and the same is true of economic entomology, in which department there is also a demand for men to carry on the destruction of insect pests. Not only is there a need of and, a demand, for more veterinary training in the education of every farmer, but there is a growing importance in veterinary medicine as a profession. So too, in botany, rapid progress is being made in the study of plant diseases and their

remedies. General agricultural training in the management of farm affairs is recognised as an absolute necessity to a successful farmer, and market-gardeners, fruit-growers and greenhouse-owners are seeking to obtain the best possible training for their important work.

Was not his a far-sighted vision which could penetrate the obscurity of the future and make such a wise provision for these important agricultural interests of to-day. To the late Senator Justin A. Morrill of Vermont belongs the honor of founding the agricultural colleges of this great country and of raising a bulwark for our national strength and glory in every state of the Union. In 1864, in accordance with the provision of the so-called Land-Grant Act of 1862, under the combined action of the State and Federal Governments, the Massachusetts Agricultural College was incorporated. In 1882, the Experiment Station was also incorporated and located at Amherst on the grounds of the Agricultural College. The work of both these institutions is going on to-day and both are enjoying a prosperity unprecedented in their history.

The Massachusetts Agricultural College offers a free education to the young men of the State. It gives a four years' course leading to the degree of Bachelor of Science, and a graduate course leading to the degrees of Master of Science and Doctor of Philosophy. The course is designed to fit the young man for general farming, to train him to take up any of the many pursuits coming under the general name of horticulture, or to give a thorough training in chemistry, botany, entomology, or veterinary. Advanced work is offered in all of these subjects, and also in mathematics and physics. Careful attention is paid to English rhetorical composition and to literature throughout the course. French and German are each required for one year, and are elective in the senior year. Mathematics and chemistry are required. A course in engineering is given in the sophomore year, and a course in physics, supplemented by laboratory work, is required in the junior year. The work in required chemistry consists in text-book and lecture work supplemented by laboratory practice. In the senior year students may elect political economy, history, geology, astronomy, or Latin. The needs of those who look forward to teaching are considered and met, while for those who desire a broad and lib-

eral college education to fit for business and mercantile life a training of the best kind is offered in the study of subjects which are useful and practical as well as broadening and upbuilding.

DEPARTMENT OF HORTICULTURE.

The aim of this department is to give to each and every student a fair knowledge of the business of horticulture in all its lines, including landscape gardening and also some of the fundamental principals of forestry as related to the methods of improving the conditions of the forests of Massachusetts or New England. This work is carried on during the sophomore and junior years.

It is believed that every graduate of the college should have at least this knowledge whether he is to follow any line of agriculture or horticulture or not. This institution was endowed and established for the specific purpose of educating the people who are engaged in the practice of agriculture in its various departments and the mechanic arts, and as one-third of the government endowment was assigned to the Massachusetts Institute of Technology for the education of those engaged in the mechanic arts, it leaves the Massachusetts Agricultural College the one duty of educating those who are to engage in agriculture or horticulture.

The standing and influence of any class of citizens depends upon the breadth of their education, which enables them first to practice successfully their own calling and second to understand and have sympathy for the conditions of those engaged in other occupations. Should a student after completing his course here become a doctor, lawyer, merchant, manufacturer or a teacher in the public schools or higher institutions of the state or country, he would have some knowledge of and therefore some interest in the products of the people engaged in horticulture and could not be pointed out as a graduate of a *special* school and yet have no knowledge of one of the important interests for which that school was established. It is a natural tendency with most professional men and those engaged in other callings than agriculture or horticulture to look forward to the time when they may enjoy the quiet pleasures of home life amid growing fruits, flowers or perhaps some of the larger agricultural interests; and the elementary training of the student in

various lines of horticulture will help to foster this tendency.

In the senior year the course in horticulture is intended to fit the student for the *practice* of fruit culture, market-gardening, floriculture, or landscape-gardening. It is urged that every student who elects horticulture, should, while making some one of these subjects a specialty become more or less familiar with all lines of this subject and possibly some lines of agriculture, as the conditions under which both agriculture and horticulture are carried on in New England vary greatly, and our farms possess so many varying conditions that no one can tell into what side-issues one engaged in dairying or in fruit growing may not be drawn.

It is important that those who have selected some line of horticulture for their life work become *skilled* in the practice of that work as soon as possible, and to this end all the important market garden crops are grown, to a limited extent, in the field and under glass; all the fruits, all out-door bedding or flowering plants, all plants for indoor decoration, and all trees, shrubs and plants for outside decoration of the home, the routine work of which can be seen by the students and be taken part in whenever time permits and the student may, if he will become considerably skilled in this routine work.

The equipment for this work consists of about 75 acres in the horticultural department proper, upon which is grown all the varieties of the large and small fruits in condition to illustrate all stages of growth from the seedlings to the full grown tree or plant, and in most cases in sufficient quantities to illustrate the market or commercial side of this line of horticulture. For the study of landscape gardening, we have first of all an ideal location, being surrounded on all sides by the greatest wealth of natural beauty to be found anywhere in the country, and the grounds have been laid out into a *farm-park*, where the farm and garden portions are more or less intermingled, and while not carrying out the modern ideas of the *natural system* of landscape gardening, yet does produce that blending of beauty and utility that should surround all farm homes.

The equipment for teaching floriculture is one of the best connected with any agricultural college in the country, having sufficient space under glass to

illustrate the business of growing the most important cut-flower plants, house and out-door decorative plants, and also a very large and complete collection of economic plants, like coffee, banana, India rubber, manilla hemp, sago, etc. The green-houses are of many forms and include as many methods of construction and of heating and ventilating appliances as possible. For the study of landscape gardening the large collection of ornamental trees, shrubs and plants arranged in various places about the grounds affords a good opportunity for the student to become familiar with the materials used in ornamental planting and a large number of the graduates are now successfully engaged in this line of work, with a demand for more men than are qualified for the positions offered. The "short winter course" in horticulture is designed to give instruction to young men, who cannot afford to spend four years in study, in the practice of the lines of work they are engaged in or plan to take up in the future. The course is also adapted to those of some experience who wish to obtain a knowledge of the most modern and desirable methods, varieties, etc., as illustrated by the practice of the most progressive and successful fruit growers, market gardeners and florists.

DEPARTMENT OF CHEMISTRY.

Great opportunities now await the young people in our schools. From practical industries, agricultural and other experiment stations, from colleges and technical institutions, comes an increasing demand for scientifically trained men and women. The work offered them is of great variety. It may be that of superintending an intricate scientific process on a large scale, of making a careful study of such a process with a view to its improvement, or, perhaps, of making an original investigation. In another case it will be the execution of chemical analyses, or the conducting of plant or animal experiments. It may be the work of teaching in the professor's, the author's, or the editor's chair. All of this requires thorough training in Chemistry.

It is easy to believe that the country which has the best chemists will be the most prosperous and the most powerful. It will have, at the lowest cost, the best food, the best manufactured articles, the fewest wastes and unutilized forms of matter, the best guns, the strongest explosives, the most resistant armor.

Its inhabitants will make the best use of their country's resources; they will be the most healthy, the most free from disease; they will oppose the least resistance to favorable evolution; they will be the most thrifty and the least dependent on other nations. Competition to-day between nations is essentially a competition in the science and application of Chemistry.

In beginning the study of Chemistry a young man often makes a choice between this and that *kind* of Chemistry. He starts with photographic, food, color or fertilizer Chemistry. Or it may be the distinction is dignified by such names as agricultural, medical or metallurgical Chemistry. Such a student must learn that there is only *one* Chemistry. There is only one *good* way in which to begin the study of Chemistry; and that is to secure a solid foundation in general Chemistry. Then the special knowledge, indispensable for the man of advanced position, is readily acquired. Any day may bring to light a cheaper and quicker method for producing one of our manufactured staples; new theories may require experimentation, or teaching from entirely new points of view. At such a crisis the thoroughly-trained and versatile chemist simply turns with ample equipment to the newly presented front. The "photographic" chemist or his colleague must either turn back, and at great sacrifice bring up the neglected broad preparation, or, go under.

It would be a mistake to suppose that the educational force of chemistry is expended in producing chemists alone. An eminent national writer has said, "The education of its *people* in Chemistry and the physical sciences is the most paying investment a country can make." But aside from training chemists and providing an important factor in all liberal courses of education, chemical study performs a special service for still other professions. Engineers, physicians and physiologists often find their success measured directly by the extent of their chemical training.

Accurate observation, logical *thinking*, systematic and *constant* industry, are absolute requisites for the successful chemical student. And these are the factors which make men of affairs, administrators of large interests and statesmen. A few names from the large number of men in high public service, who were first chemists by profession may be mentioned. Among presidents of universities and colleges are, Eliot of Harvard, Rogers and Crafts of the Massachusetts In-

stitute of Technology, Drown of Lehigh, Morton of Stevens Institute, Dabney of Tennessee, Venable of North Carolina, Clark of our own institution; and, from our alumni, Washburn of Rhode Island and Stone of Purdue; among statesmen, Senator Hill of Colorado, Lords, Prime Minister Salisbury, Playfair and Roscoe of England and J. B. Dumas and Berthelot of France.

Courses adapted to the requirements mentioned, are offered at this college. Instruction is given in general and organic Chemistry, all kinds of analysis, including that of minerals and preparations. The needs of students, fitting for positions in experiment stations and those taking courses in entomology, botany and other biological subjects, medicine, veterinary science, dairy work and agriculture, receive special attention. Three teachers are thus occupied. Fourteen rooms, well adapted to their special uses, are supplied with all kinds of apparatus and chemical materials. Instruction is given by lectures, conversations and laboratory exercises, with written and oral examinations.

A Chemical club meets at stated times, usually in the evening, for discussion in a social way, of current topics of interest. This is attended by the students, members of the faculty and the officers and workers of the experiment station. The meetings are frequently addressed by interesting speakers on live subjects from practical life. They are a source of enthusiasm highly valued by those who participate.

Eight courses are now offered in Chemistry. Their time, aim and arrangement are briefly indicated in the following table:

CHEMISTRY AT THE MASS. AGRIC. COLLEGE.

TIME STATED IN HALF YEARS.

Courses, {	B. S.		M. S.		Ph. D.		Special Agric. Dairy
	Major	Minor	Major	Minor	Major	Minor	
Freshman	1	1	1	1	1	1	
Sophomore	2	2	2	2	2	2	
Junior	2	2	2	2	2	2	
Senior	2		2		2		
Graduate			4	2	6	3	
Total	7	5	11	7	13	8	1* 1*

*Every winter term.

Considerable margin is allowed advanced students for the study of special subjects. More specific information is freely furnished in answer to inquiries addressed to the department of Chemistry.

DEPARTMENT OF VETERINARY SCIENCE.

According to the last census the total value of domestic animals and their products in the United States amounts to nearly two and one-half billions of dollars distributed as follows :

Value of farm animals,	\$1,655,414,612
Value of dairy products,	454,900,000
Value of poultry and products,	343,000,000
Total,	\$2,453,314,612
In Massachusetts the value of farm animals is placed at	\$19,521,586
Value of dairy products,	9,544,375
Value of poultry products,	553,970
Total.	\$29,619,931

A conservative estimate gives an annual loss on this valuation of 6% due to the ravages of disease among live stock. By the intelligent application of the laws of animal hygiene a greater part of this loss is preventable.

The figures given above show the relation of Veterinary science to animal husbandry. With the rapid development of Veterinary medicine and bacteriology during the past twenty years we have added very greatly to our knowledge of the causes of contagious and other animal diseases.

A knowledge of the action and habits of the micro-organisms producing this or that disease enables us frequently to prevent its action upon our animals.

The principle aim of modern veterinary science is to prevent disease. This is accomplished by the more intelligent treatment of our animals, and also by the removal and destruction of the elements of contagion causing disease in them.

The prevention of animal diseases is largely in the hands of those having the immediate care of the stock. The relation of the veterinarian to the one in charge is principally that of an advisor. He can direct but is not in position in the ordinary every day treatment of the animals to carry out the directions. The prevention rather than the care of disease should be the chief aim of all instruction in veterinary science given to agricultural students.

The course given in M. A. C. at present may be outlined as follows : (a) the hygiene of farm animals ; (b) the anatomy and physiology of the bony, muscular, circulatory, respiratory, digestive and genital systems ; (c) a study of the more common pathological pro-

cesses and the general causes, symptoms and effects of disease ; (d) the consideration of the specific diseases of the different organs, particularly as regards causes, effects and prevention ; (e) the nature, action and use of drugs ; (f) a microscopical study of the disease producing micro-organisms and animal parasites.

While the course has been arranged principally to meet the requirements of the stock owner the interests of the prospective medical and veterinary students have not been ignored.

With the new laboratory and hospital stable constructed after the most modern plans, well equipped with apparatus for the study of disease, providing the best of sanitary conditions, and for the separation of diseased animals and thorough disinfection, the department has unsurpassed facilities for giving instruction in this important branch of agricultural science.

DEPARTMENT OF ENTOMOLOGY.

Every department of agricultural work is affected by the attacks of injurious insects, and losses from their ravages amount to millions of dollars each year in Massachusetts. In addition, many other industries suffer by their work, and the difference between profit and loss in the year is often decided by these small creatures. A conservative estimate of the annual loss caused by insects in the United States is three hundred million dollars, and with each year this sum increases.

Such facts have led to the study of Entomology and particularly Economic Entomology, in order to understand the habits of the different insects and the best methods for preventing loss by their attacks. In this line of work the United States leads the world, and nowhere in the United States is the subject given more careful attention than at the Massachusetts Agricultural College.

It is noticeable that market gardeners, horticulturists, fruit growers, raisers of field crops, and in fact, those who are cultivating the soil in any line, reach the best results when they have a sufficient knowledge of insects to intelligently combat these foes, and in order to obtain this knowledge, the study of Entomology should be taken by everyone who intends to follow any one of the agricultural sciences.

Recognizing the needs of such students much attention is given to Entomology in the course at this College.

In the junior year the spring term is occupied by a study of insects themselves, their work and the ways in which they may be kept in check. But as insects compose five-sixths of all animals, and as their habits and lives differ widely, only the most elementary ideas on the subject can be presented within the time allotted. Accordingly a senior elective in the subject is also provided, and more thorough work is done along these lines.

Here undergraduate work in Entomology ends, but the demand is so great for specialists to furnish information about insects to those who have been unable to obtain such courses themselves, that a three-years course, with Entomology as a major subject, and two selected minor subjects, has been established and has received the highest endorsements both in this country and in Europe. The graduate from this course is a specialist and must be able to recognize insects and their work; must be able to advise the most practical and practicable method of treatment to pursue in each case; must meet and solve the new problems constantly arising in his work in such a manner as to produce satisfactory results; and, in addition, he must have a good knowledge of how crops of all kinds are raised, of forestry and forest insects, of live stock and their parasites, and of every department of life where insects are a pest. Men thus fitted are few, and positions are waiting for them in every part of the world, and to fit students for such places is the purpose of this graduate course.

DEPARTMENT OF BOTANY.

Considerable attention is paid to the study of Botany at the college, both in the regular course and as a special subject for advanced work. As a required subject in the freshman and sophomore years a general study is made of the nature, structure and classification or naming of plants. Well equipped laboratories are provided for this work, each student being furnished with microscopes and all the material and apparatus necessary for a thorough study of the subject. To those having a taste for out-of-door wanderings and the study of Nature, this course has special attractions as each student is required to make a collection of plants and several prizes are offered for such collections.

For those students who wish to continue the subject

further, several courses are provided as electives in the senior year, in which the more advanced branches of Botany are taken up, and beyond this are post-graduate courses for those who wish to still further specialize in the subject. The department is thoroughly equipped for all these courses and nothing is spared to make them as complete as possible. The extensive green-houses and grounds of the horticultural department, adjacent to the botanical building, are freely available, and the location of the college in one of the richest portions of the state as regards its flora is also a distinct advantage.

DEPARTMENT OF ZOOLOGY.

The zoölogical instruction aims to cover, in as comprehensive a manner as possible, a systematic and comparative view of the entire animal kingdom embracing both living and extinct forms, with the exception of the insects which, because of their vast numbers and economic importance, are treated in a separate science.

In accordance with the plan of passing from the known to the unknown; man himself is taken as the first type, and in the sophomore year, with Martin's "Advanced Human Body" as a guide, the student is led through a study of human anatomy, physiology, and hygiene. This study is illustrated by means of charts, manikins, models and such portions of domestic and other animals as are readily obtainable for comparison and demonstration. Occasional lectures serve to supplement the text-book. The aim is to teach the student to know and to appreciate to some extent the marvels of his own organization and to furnish a basis for further study. In the junior year the study of Zoölogy proper is taken up and the student becomes the investigator, for the principal work is done in the laboratory, the lectures serving only to supplement the knowledge acquired by observation. For future classes a text-book, Parker and Haswell's "Manual of Zoölogy," will be used with a full list of the best laboratory guides and other standard zoölogical works for constant reference.

The wealth of microscopic life abounding in pools and streams near Amherst, and the close proximity to marine and inland supply depots, renders it possible to have as complete a list of forms for study as the time allotted to the work allows. First come the micro-

scopic forms, *Amoeba* and its allies, *Englena* and *Volvox*, and the slipper, trumpet, and bell animalcules, besides a host of less noted members of the same great group. Here the work is particularly fascinating as one can observe, not alone form and structure, but the habits and activities of the inhabitants of, what is to the unaided eye, an unseen world.

Then in the case of the higher forms an example of each principal class is dissected, drawn, studied and compared with others of its class with a view to knowing the type and the variations caused by different environments and modes of life. Parallel with the anatomical will be the taxonomic or systematic work; that is, the study of the forms with their classification and arrangement which are exhibited in the very complete museum collection, as well as by lantern pictures of existing animals and restorations of extinct ones, and by the growing collection of living animals of various sorts.

Thus the student is brought to understand, by means of abundant illustration, the workings of those great laws which have governed the evolution of the various races; the influence of environment; the struggle for existence; the probable causes of the extinction of great groups of other days, the probable future of existing ones, and the relations existing between man and the rest of the animal kingdom.

The value of this to the man is to teach him to use hand and eye, to appreciate and therefore the greater to enjoy animate nature, and to give him a knowledge of general zoölogy upon which to build the superstructure of advanced zoölogy or entomology, or the veterinary science.

DEPARTMENT OF AGRICULTURE.

It is the aim to make the time devoted to the study of the subjects taught under the name of "agriculture" in this college, as fruitful as may be in the development of manhood and mental power. The course is not regarded as having industrial training alone for its object; neither on the other hand, is it so planned as to give no help on the side of industrial training.

Technical training alone: or, applying the principles under consideration directly to agriculture, instruction in the best methods of plowing, planting, reaping, feeding, etc. would more appropriately be taught in a *farm school* than in a *college* of agriculture. That

such training is uncalled for is not believed. There is among us much slovenly farm work which should be bettered; but improved methods of work can better be taught either in a school of practice or upon the private farm than in connection with a college course. President Hadley of Yale has recently well said: "There are two ways of making a man a better worker in his profession: by technical training, which teaches him in his school days the things which otherwise he would have to learn afterwards; and by scientific training, which teaches him in those same school days things which he would otherwise not learn at all. The former aims to save the time of the student, the latter to increase his opportunities of ultimate development."

It is profoundly believed that the *agricultural* training in college should be directed chiefly to the attainment of the second of these objects.

While, however, this side of our work receives the greater emphasis, much help it is believed is given on the technical side as well, through the discussion and study of the principles upon which the accomplishment of the objects in view in the various farm operations depends.

With a knowledge of these principles or with a mind fitted by training to look for principles and always to work with these uppermost, one soon learns the "technique" of farm operations; can adapt oneself to the ever varying conditions of practical experience; and, best of all, may hopefully look for progress in methods. Not how to plow, how to drain, to irrigate, to manure; but why we do these things is it important for the college man to learn.

This being the animating principle it was decided some years since, and it is believed rightly decided, that the compulsory work which was a feature of the training here in the earlier years should be given up. Training in the methods of the various farm operations is, however, still given when desired; it is in short elective. There has been a feeling, doubtless, in some quarters, that this change would react unfavorably; that a lesser proportion of our graduates would engage in agriculture or agricultural pursuits because of it. Investigation does not sustain this view. Of the living members of the first ten classes graduated 35.2% are engaged in agriculture or pursuits directly connected therewith; of the last ten (1889-'98) the percentage similarly engaged is 49.3. Of

the living members of the first five classes the percentage in these pursuits is 46.2; in the last five it is 62.4. Education work pertaining to Agriculture, Experiment Station work, fertilizer business and veterinary science are included. Out of 142 men living in the first ten classes 32 are on farms or gardens; of 209 men in the last ten classes (1889-'98) 65 are so found; of 65 living members of the first five classes 19 are engaged directly in agriculture; of the 93 men in the classes '94 to '98, 37 are so engaged.

A candid study of these statements, which are founded upon the latest available information, must convince that, far from its being true that we now educate away from the farm more than formerly, we are returning an increasing proportion of men to the farm.

The training in agriculture now given here is, then, largely theoretical and developmental; and is as yet carried on chiefly by means of lectures and text-book study. At the same time the application of correct theory in practice is constantly and largely illustrated by reference to field, to barns and stables, and to experiments in progress.

The work of the first three years is required, and includes a study of the breeds of stock, stock breeding, stock feeding, and dairying. The history of agriculture and its relation to national and world prosperity are studied. Soils, and the various operations thereon including tillage, liming, drainage and irrigation are taken up. Manures and fertilizers and their use are fully studied.

An effort is made in senior year to adapt the work to the individual needs of the students taking agriculture as an elective. All such students, however, are expected to study the various crops of the farm, climate and atmosphere in their relations to crop and animal production, ensilage, dairying and farm management.

Those intending to engage in farming, whether as principals or superintendents, are expected to devote much time to observations of the actual farm operations carried on here.

The carrying through of some experiment is urged upon those hoping to take up experiment station work, and such men make a special study of experiment station literature and methods of experiment.

Those intending to engage in educational work con-

nected with agriculture pay particular attention to the literature of the subject. Laboratory methods will be more largely employed both in the required and elective studies so soon as a hot-house and suitable rooms and appliances are available.

In conclusion attention is called to the fact that the chances for fortune and usefulness upon the farm and in pursuits connected with the farm were never greater; as is abundantly shown by the numerous instances of conspicuous success in both directions; and by the increasing call for men educated in such lines as are here taught.

DEPARTMENT OF ENGLISH.

The aim of the English department in the Massachusetts Agricultural College is to train the students to a correct and effective use of the English language in the oral and written expression of thought; to secure some acquaintance with the masterpieces of American and English literature; to develop ability to present logically and forcibly, oral and written arguments or propositions assigned for debate. As means to these ends rhetoric, literature, argumentation and oratory are studied.

The course in rhetoric comprises a study of the choice of words, the theory of phraseology, special objects in style, the sentence, the paragraph, the whole composition in its plan, arrangement and development. This is followed by lectures on invention, in which the elements and underlying principles of literature are discussed. The students are expected to give practical illustration of the principles taught in written exercises, themes and compositions that are required throughout the course.

In the study of American and English literature text-books on the history of these literatures are used, but these text-books are not allowed to take the place that belongs to the literatures themselves. The student approaches English literature through American literature. Having learned to appreciate and to enjoy the literature of his own country he anticipates with pleasure some familiarity with the wider field of the literature of England. Throughout the course in literature an attempt is made to know authors through their writings rather than through what others have written about their writings. As an important aid to an appreciation of literature the English language is

studied in its origin, structure and development, while the principles of literary criticism are found in the masterpieces of standard authors.

Instruction in oratory is given through exercises in declamation, first before the instructor and then before the class. In the junior year at least three orations upon subjects assigned by the instructor or chosen by the student are written and delivered before the class.

A course in argumentation is a required exercise during the senior year. The principles of the subject are studied in text-books and in the work of eminent debaters, while the practical illustration and use of these principles are secured by written briefs and forensics, and by oral debate.

While the studies briefly outlined above are acknowledged by experienced educators to be of great value they will not necessarily produce "good writers" and "good speakers," nor will they always be crowned with a rich harvest of liberal culture. There can be no "good" writing without clear thinking and in our desire for effective expression of thought we must not lose sight of thought itself. It cannot have escaped the notice of those acquainted with college students that the thoughtful, earnest ones of their number are an unquestioned minority. For this condition of things the students are not wholly responsible. Too often the hour of recitation or lecture passes without any such quickening of the student's interest or attention as shall lead to thoughtful consideration of truths involved in the subject in hand or suggested by it. Fortunate is that teacher of English who can improve the opportunity which is his to help his students to an intelligent appreciation of the treasures of thought and imagination that literature contains.

DEPARTMENT OF POLITICAL SCIENCE.

I. Political economy. Care is taken first to train the beginner in the fundamental principles of the science by means of a text book supplemented with lectures. The student is taught to observe facts and from them derive those principles and laws which underlie and govern the production, distribution exchange and consumption of wealth. The terms used are carefully defined and distinguished. Theories are scrutinized and arguments are weighed.

The economic history of England and of America is

then studied so that the theories, laws principles of the science may be discerned and studied in their actual application to the practical business of daily life. An appeal is made to the experience of the generations of men working in the midst of the advancing centuries.

One object kept steadily in view is to interest the student in the current economic questions of the day, fit him to understand the discussion of them and at length enable him to form an opinion of his own regarding them, so that he may wisely adjust himself and his possessions to the constant developments of the business world. This object is further promoted by requiring of each student a written paper giving the results of his own investigation of some practical problem, which paper he is to read and defend before the class. In connection with this investigation, courses of lectures are offered upon trusts, the currency, economics of agriculture, banks and banking, the labor question and other topics of current interest.

II. Constitutional history. The later part of the year is spent in the study of constitutional history.

Preparatory work is done, as may be necessary, in the review of our political institutions. The nature of our government, federal, state and municipal is explained, and the relations of these three kinds of government set forth. The actual working of political parties and conventions is described. Then our own government is compared and contrasted with the governments of England, France and Germany.

The history of our written and unwritten constitutions is studied as time permits. The origin and development of the federal constitution are set forth as related to state constitutions and as connected with the constitution of England.

Five hours per week are given to the work of this department during the year. The object kept constantly in view is to make the good citizen and the successful man of business; the means employed is a thorough understanding, thorough observation and thought of the environment constituted by the economic and political world.

DEPARTMENT OF MATHEMATICS.

In a recent paper, under the caption, "Why Study Mathematics?" the author makes the following statement: "For genuine achievement the mind has need of more than the untrained coming and going of ideas

* * * Whatever of sympathy and instinctive tact and of other unreasoned processes the mind may need in facing actual life, it also needs as much skill as it can possibly acquire in consciously directed thinking; that is, in appreciating and utilizing clear conceptions; and, however much other branches of study may entertain and inform and develop, mathematics is of all studies the best fitted by its nature to train the mind in thinking clearly and straight to the point."

These sentiments voice the belief of the instructors of the Mathematical Department, and every subject handled, from the first term of the freshman year to the completion of the elective work, is presented with a view to reaching this much desired end.

Aside from the question of mental development, there are plainly evident the utilitarian ends of the subjects taught. The mathematics for the underclassmen are of direct value to the student who may adopt teaching as his profession, and it is intended to give as extensive a research as possible in the allotted time. They also form the necessary basis for the work of this department in the upper classes, and the embryo engineer or physicist realizes that thorough preparation in his first years is essential to success, when confronted by the more profound problems that the advanced work brings.

"A little knowledge is a dangerous thing," in these days when scientific research probes so deeply into the secrets of Nature. As a graduate student, if not earlier in his career, the man who would specialize learns how extended a general education is needed as a foundation for the superstructure he would rear.

The botanist working along advanced lines of vegetable pathology and physiology finds with each year an increasing need for exact knowledge of the principles underlying the subjects of heat, light and electricity. In this fact he finds an answer to his undergraduate question—Of what value is Physics to me if I am to devote myself to Botany?

To the horticulturist, who combines with his knowledge of horticulture a practical education in the principles of engineering, is given an immense advantage, financially, over the man not so equipped. For landscape engineering is a comparatively new field and the horticulturist working along this line may find competition less severe.

Toward these ends the department is working, adding when it is possible to the laboratory and field equipment so that although only an adjunct, the Mathematical Department may keep its place as a necessary factor in equipping the graduate of the Massachusetts Agricultural College for successful competition in the world "outside college walls."

DEPARTMENT OF MODERN LANGUAGES.

If all scientific research were carried on by English-speaking peoples, or if all scientific publications were written in the English language, there would be no necessity for our scientists to study the languages of the nations. But some of the greatest discoveries in modern science have been made by those who speak a different language from our own. For the thorough and painstaking student who wishes to acquaint himself with the best thought of the many eminent French and German writers, or who wishes to keep abreast of the times in a knowledge of the periodical literature dealing with his specialty, a knowledge of French and German is quite necessary. To meet the requirements of these advanced students of science or of the scientific investigator of other *Belles lettres* than our own is the principal aim of instruction in French and German. The establishment of an undergraduate course anticipates a good deal from this point of view, but it is necessary to begin early in order to secure the most satisfactory results, as considerable time is necessary for an adequate mastery of a working knowledge in any foreign language. Students who have had drill in French and German in the high school are enabled to make considerable progress in the year allotted to the work in college. Those desiring to pursue their study further may elect French and German in the senior year.

The undergraduate work in French is required in the freshman year. A knowledge of the elements of grammar, such as the fundamental principles of construction and an acquaintance with regular and irregular verbs and their conjugations, is insisted upon. Translation is begun early and is given especial attention so that the student may acquire a vocabulary as soon as possible. In the sophomore year the student takes up German. The plan of study is similar to that of the French in the freshman year, especial attention being given to translation.

To best meet the needs of the advanced student, and to best fit him to carry on investigation in any department of scientific inquiry where a knowledge of French and German is necessary, or helpful, is constantly kept in view while at the same time the value of these two studies as mental drill and discipline and as auxiliaries to inquiry in the departments of French and German literature is not lost sight of.

OBJECT OF MILITARY INSTRUCTION IN COLLEGES.

This is a subject only partially understood by many and not understood at all by some. By those who fully understand it, it is considered a wise precautionary measure on the part of the general government to have young men in college trained in the Elementary Science of War even if not so well instructed in those higher branches that fit one for the responsible duties of command. It is expected that in case of any military emergency, the graduates of these institutions would prove a valuable factor in our national defense and security. The value of such instruction was exemplified in the recent war with Spain. The Report of the Inspector General for 1898 says: "The presidents of 46 colleges, whose military departments numbered about 7,100 students before hostilities began, reported that 29 of their military students and 59 alumni had been commissioned in the Regular Army, and 157 students and 296 alumni in the Volunteer Army, a total of 541 officers, or enough for about 12 regiments; and that 1,084 students and ex-students had joined the forces as noncommissioned officers or privates."

The political conditions of continental Europe make military service there compulsory. Ten per cent of the whole population of France is enrolled on the army list, active and reserve; in Germany 6 1-2 per cent. In the U. S. there is less than one soldier, regular and volunteer, to every thousand of the population. In the U. S. military service is voluntary; for this reason many of our good, loyal citizens fail to recognize the fact that they owe any military duty to the government. Many estimate national strength by the standard of numbers; their estimate is that if we have a population of 75,000,000 we can put 7,000,000 soldiers in the field and are therefore, bound to whip a country with a population of 60,000,000, that can not put over 5,000,000 soldiers in the field.

The fallacy of this proportion of war strength to numbers was demonstrated by our civil war, the war with Spain and, more recently, the triumphant march of the allied forces upon the capital city of China.

Ability to handle the rifle and use it effectively, discipline, and an unconquerable *esprit de corps* has brought our army to the high standard it maintains to-day. Training in military schools and colleges is supposed to furnish military training without service in the regular army. It has a good influence upon the physical, moral and social character of the student besides inculcating a military spirit, and the lesson of discipline, without which a military organization is but a military mob. By the uniform he wears, by the instruction and drill he receives he is brought into closer relations with the government and recognizes more clearly his duty to serve it in time of need, and to defend the honor of it. Those who have worn the uniform, who have faced dangers and suffered privations in the service have a deeper love of country, a greater reverence for the flag and stand ready to risk life itself for the protection of the one and the honor of the other.

The first detail of an army officer as Military Instructor in a college was in St. John's College, Annapolis, Md. in 1826. The next was at the Norwich University of Vermont in 1834, and one at the South Carolina Military Academy in 1842, but the government failed to realize the value of military instruction until lessons of the civil war demonstrated the necessity of having well trained officers to command troops. There were not at that time, nor at the present time, is there a sufficient number of graduates of West Point to fill vacancies in the army.

Several acts of congress have been passed since 1862 appropriating money and public land, or scrip in lieu thereof, for the support of the Agricultural colleges. There are now 42 Agricultural colleges which derive financial benefit from these several acts of congress, to which army officers are detailed, these colleges derive an annual income of \$1,491,489, or an average of \$35,511 each. These acts of congress make military instruction, under a regular army officer, compulsory. To further encourage military instruction the general government furnishes arms and equipments, the president of the college giving bond to secure the government against loss or damage of any of this property.

Military Science embraces problems that find practical solution upon the field of battle where the highest talent, courage and judgment are demanded. Wars have raged since the first dawn of civilization and seem likely to continue until the dawn of the millenium. Until that blessed time shall arrive military training will be necessary. after that " Swords will be beaten into plow shares and spears into pruning hooks."

ELECTIVE COURSES FOR SENIORS.

1.	2.
Agriculture, Political Economy. Veterinary.	Agriculture, Chemistry. German.
3.	4.
Botany, Chemistry, Veterinary.	Horticulture, Entomology, Agriculture.
5.	6.
Chemistry, Astronomy, Geology, Horticulture.	Entomology, Botany. German.
7.	8.
Political Economy, English, History.	Mathematics, Engineering, Political Economy.
9.	10.
Veterinary, Chemistry. German.	English, Latin, Mathematics.
11.	
Botany, Horticulture, English.	

THE LIBRARY.

The library of the Massachusetts Agricultural College is one of which the college may well be proud. Of the kind it is second to none in the United States and it is mainly through the efforts of the president of the college that it has come to hold such an exalted position among scientific libraries. The works are divided into ten classes as follows: General works, 131 vols.; Philosophy, 143 vols.; Religion, 234 vols.;

Sociology, 2179 vols.; Philology, 60 vol.; Natural Sciences, 7874 vols; Useful Arts, 8049 vols; Fine Arts, 160, vols.; Literature, 1392 vols.; History, 1417 vols; making a total of twenty one thousand six hundred and thirty nine volumes. Of the separate subjects, General Agriculture with 3438 volumes has the largest number, Botany comes next with 2108 volumes. On the subject of Entomology there are 1257 volumes and on Political Economy 620 volumes. From these figures it will be seen that the library is well equipped for thorough investigation in most every branch of study.

Connected with the library is a reading room which has on its tables the scientific papers and magazines of the day. Literary periodicals and newspapers are found in the students' reading room. The library is not alone for the use of the students and officers of the college, but anyone desiring to use it for reference, can do so, and may draw books.

THE WORK OF OUR ALUMNI.

Perhaps there is no better way in which to estimate the rank of a college than to consider the measure of success attained by its graduates. In the words of the old proverb, " By their fruits shall ye know them "; and surely the fruits of a college are the alumni that go forth from within her walls. If these men, who have tested for four years the things that she has had to offer, find themselves but imperfectly fitted for their life-work, then the college is not doing its duty, and cannot expect to long retain popular favor. But if, on the other hand, the great mass of the alumni show themselves well-trained and efficient along their chosen lines, then the college need have little fear of its future.

There are now about five hundred living alumni of this college, everyone of them who is in good health has some definite vocation. There are no idlers. The occupations selected, however, are along widely different lines. So far as could be learned they are at the present time about as follows :

In business,	78
Farmers,	70
Teachers,	56
Physicians	29
Experiment Station workers,	28

Farm and Park Superintendents,	27
Graduate Students,	25
Civil Engineers,	23
Chemists,	23
Clerks, Bookkeepers, etc.,	23
Veterinary Surgeons,	14
Journalists,	13
Lawyers,	12
Manufacturers,	12
Market Gardeners,	9
Florists,	9
Mechanics,	9
Electricians and Electric Engineers,	6
Entomologists,	6
Dentists,	6
Architects,	4
Clergymen,	3
College Presidents,	2

A study of this table reveals many things of interest. To begin with, there seems to be an erroneous impression among the people at large that the only occupation open to the graduates of this college is farming. This is doubtless due to the somewhat misleading name of the college and it is to be feared that this impression has kept many would-be students away in the past. Yet the table shows that not twenty per cent of the graduates ever choose agriculture as their life-work, and in recent years the proportion has been even less. As the table indicates it is business pursuits that attract the largest number of our graduates. The same is probably true in every other college in New England. The time is coming when a business man must have a college education in order to succeed, and the more far-sighted men of to-day are preparing for it by sending their sons to college.

Farming, however, stands a close second on the list. In this too a college education is essential under modern conditions. Exceptionally good courses in Agriculture are offered here for those who desire them, and those of our men who have taken them up, probably rank as a body among the most progressive farmers of the state.

The large proportion who have taken up teaching is highly significant, especially when we learn that at least forty out of the fifty-six are teaching in colleges and universities of the first rank. Harvard, Yale, Colum-

bia, McGill and Purdue are among the universities which have drawn upon us. Two, moreover, of our men, have risen to the presidency of their respective institutions. Rhode Island State College has had for years as its president Dr. J. H. Washburn, '78; and Purdue, one of the leading universities of the Middle West has within a short time called to be its head, Dr. W. E. Stone, '82. There can be but few more responsible and influential positions than the head of a large and growing university; and we, as undergraduates must take pride in the fact that our college was thus honored.

Twenty-nine men have entered upon the practice of medicine and fourteen more have chosen the allied science of veterinary surgery. This is sufficient evidence in itself that the old claim that the scientific institutions could not fit for the learned professions is unfounded. The fact seems to be that no better place exists than the Massachusetts Agricultural College for the obtaining of the firm groundwork of a broad and liberal education, preparatory to erecting the superstructure of medicine and kindred professions.

Twenty-eight men are entered upon the rolls of the Experiment Stations of our own and other states. These stations were established principally for the purpose of scientific research, and the success of our graduates in this work testifies to the soundness of our scientific training.

No fewer than twenty-five men are now studying for advanced degrees. Many of them are in the various medical and veterinary schools, for which our curriculum seems to afford especially good preparation. Others are seeking the degrees of Ph. D. and M. S., many of them here at this college. It is coming to be recognized more and more that the facilities for graduate work along scientific lines are exceptionally good at this college, and graduates of other colleges are taking advantage of this fact. In certain branches, notably botany and entomology, the courses offered are said to be unsurpassed by any college in America.

The number of civil, mechanical and electrical engineers calls attention to the mathematical department. Perhaps this department more than any other is apt to be underestimated by those not familiar with the workings of the college. While its purpose is admittedly secondary to the purely scientific subjects, thorough instruction is provided and those who have

gone into the work are meeting with good success. The same may be said of those who have taken up chemistry, entomology, market-gardening and floriculture, all of which are ably represented. In entomology, an especially high standard has been reached, several of our graduates having been selected for responsible positions abroad as well as at home.

The law has claimed twelve men. Of these two are now instructors in Yale and Columbia, another is a district attorney and a fourth, a registrar of deeds. Comparatively little attention has been paid to politics, but besides the positions already noted, there is a governor and a member of the House of Lords of Japan, the treasurer of the city of Lowell, and at least one member of the present state legislature.

Perhaps the last position in which one would expect to find our alumni is that of the ministry, yet we find even here no fewer than three upon our list.

In conclusion, then, we may say that while, such is the irony of Fate, we are unable to point to a single graduate of international reputation, we yet have the double satisfaction of feeling that no person need hesitate to enter this college from a fear that the training afforded is insufficient, and that our alumni wherever they may be found are doing creditable work for themselves and for their Alma Mater.

CHEMICAL CLUB.

The next meeting will be held Monday evening, Jan. 7, 1901, at 7-30 P. M. *sharp* in the Chemical lecture room.

The first part will consist of a talk on the life of Kekulé by Professor Howard and the exhibition of portraits of distinguished chemists.

The second part will be conducted as usual.

E. B. HOLLAND, President,
S. W. WILEY, Secretary.

ADDITIONS TO MUSEUM.

GIFTS FOR MENAGERIE.

Blake and Kinney, '02, one small brown snake each.
W. E. Burnham, Greenfield, Flat-head Adder.
Dr. Loomis, Amherst, 2 southern " Fence Lizards."
Plant House, 4 Gold-fish.
D. W. West, 3 Salamanders (red backed.)

Also: 2 Spotted Salamanders; numerous minnows (young chub, etc.); 1 Pointed Turtle (purchased); 2 Banded Rattlesnakes (*Crotalus horridus*) from Portland, Conn., (purchased); 2 Green Lizards (*Anolis*); 1 German " Fence Lizard " (*Sacerta*); 2 large salamanders (*Amblytonia*); crayfish.

GIFTS FOR MUSEUM.

Mr. Wallace, " Postaxe-eel " (out of hydrant).
Mr. Parmenter, Nematode worm (out of hydrant.)
J. B. Henry, '01, Osprey.
P. F. Felch, '00, 2 Pine Grosbeaks, 3 Cedar birds.
W. R. Pierson, '01, 1 Regal moth, 1 Catocala moth.
A. C. Wilson, '01, Heron.
E. L. Macomber, '01, Heron.
J. M. Ovalle, '01, Redstart.
J. Barry, '01, striped snake.
R. H. Vaughan, Worcester, Saw-whet owl.
W. E. Burnham, Greenfield, 1 Flat-head Adder.
C. E. Stacy, Gloucester, young Bald Eagle.

PURCHASES.

Skeleton of Salamander; Termite or White Ant, all stages; Leaf insect (*Orthoptera*, *Phosmidæ*); Earwigs (*Orthoptera* *forficulidæ*); Ant Lions (*Neuroptera*); *Sphenodon* Hatteria; baby Sea Turtle; Deplopod (*Myriopoda*); also pictures, mainly restorations.

A REVIEW OF THE FOOTBALL SEASON.

The season of 1900, while it is not marked as an eminently victorious one, stands as a proof of the development of football in the College. This season we have played a schedule of ten games, all with colleges except the single Prep. school, Worcester academy. We have come out of the season with five victories and five defeats. We have scored 107 points against our opponents' 80 points. When we consider that these games were with teams representing colleges, having four or five times our number of students, and when we understand that nearly all these games were played away from home, our men playing on unknown ground after a tiresome ride, we must concede that our team did remarkably well. Besides the development of the 'varsity the college has maintained a scrub eleven, sending that team to play games also, so

that there are already experienced players to fill the vacant places on the 'varsity.

On the opening day of the term Capt. Cooke called for candidates and aided by Halligan, '00, started a brisk practice. He found nine veteran men and plenty of new material. There were the guards, one tackle, one end, two half-backs, one quarter and the center to depend on while a full-back, an end and a tackle were wanting. There were among the candidates several ends and line men, but no experienced backs. After much experimenting Lewis, '04, was put in the position of full-back, while Halligan, '03, filled tackle. At end there was a good deal of rivalry, during the first two weeks Kelliher, Dellea and Pierce tried for the position with Lewis; but on the return of McCobb the place was given to him.

The first game of the season was with Holy Cross on Sept. 22d, and Coach Murphy strained every nerve to get the team into winning form. The men were drilled on plays and formation, handling kicks and tackling until they seemed in fine trim, physically. They met the Holy Cross players in Worcester giving them a heated argument, but were defeated by a single touchdown and goal. The reason for defeat was not so much the strength of our opponents as a slight attack of stage fright, owing to the lack of confidence.

Soon after the Holy Cross game Mr. Murphy was forced to leave us so that we were practically without coaching the remainder of the season. On Sept. 29, Worcester academy met us on our own field, being defeated 12 to 0. This game proved to us that our team was developing defensive play owing to the good work of our scrub.

On Oct. 6, Norwich was defeated in a one-sided contest. The team becoming much more confident and capable of truly fast ball. Snell was proving a strong man on defense and offense. Lewis was mastering his position and the whole team seemed to be working together as they failed to do in the latter part of the season. We met Wesleyan in a crippled condition, Lewis being out of the game and Bodfish playing full, but managed to hold them down to a decent score. In the few days following the Wesleyan game a sort of do or die spirit seemed to take possession of the men so that we met Williams on her own field in a way that cheered our supporters. In fact at this time the team was at its best never reach-

ing such a point of excellence later in the season. One set-back was due principally to an injury to Snell which practically put him out of the game for the season.

The game following Williams was Trinity and in this game was our slump. Too much censure cannot be laid to the management for this falling off as it was the folly of trying to play three games as hard as these in so short a time that without doubt accounted for the slump of the team. Trinity defeated us by a large score and the fact that Trinity did not act as gentlemen should did not seem to take away the sting. The confidence of the team was gone and with it the team work that did so much against Williams. It is not the purpose of this paper to have you think that the team was useless after the game with Trinity, for one week later it won from Vermont after traveling two hundred miles over Vermont railroads; but the fact remains that the defeat at Hartford did much to defeat us in the more important game with Amherst. The team was then weakened, it is true, by injuries, but a little coaching at the right time would have brought back the confidence and victory. As we were unable to keep a coach our team grew worse instead of better, and although we defeated Storrs, and ran up a score of 18 points on Worcester Tech; when we were put to a test on Pratt Field, lack of team work was apparent. To be sure the ground was a swamp familiar to our opponents and luck stood against us, but back of both of these and accounting for one touchdown at least was the team work and headwork of our opponets. This last defeat while it made us blue at the time, should serve as a stimulus to the team next season. The scoring of the season was as follows:

TOUCHDOWNS.		GOALS FROM TOUCHDOWNS.
Chickering 5,	Lewis 5	Barry 9
Snell 3,	Bodfish 1	Cooke 3
Cooke 1,	Halligan 1	GOALS FROM THE FIELD.
Whitman 1,	Barry 1	Cooke 1
WEIGHT OF THE MEN.		
Cooke, 170 lbs.	Paul, 150 lbs.	
Chickering, 145 lbs.	O'Hearn, 165 lbs.	
Barry, 150 lbs.	MacCobb, 140 lbs.	
Bodfish, 160 lbs.	Lewis, 170 lbs.	
Whitman, 150 lbs.	Halligan, 170 lbs.	
Gamwell, 185 lbs,	Dellea, 140 lbs.	
Snell, 190 lbs.	Kelliher, 140 lbs.	
Average weight, 158 lbs.		

College Notes.

—Tinker, 1903, has left college.

—The cold snap has afforded several days of excellent skating.

—The sophomore foot-ball team was photographed Friday afternoon

—Pres. Goodell spent the past week in Washington on business for the college.

—Allen, 1903, has been elected artist of the class *Index* to fill the place of Tinker.

—Prof. Babson delivered an address before the Chi Psi fraternity on Friday evening.

—The Freshman class has elected for polo captain C. H. Griffin and for basket-ball captain H. M. White.

—Dr. Walker spent several days last week attending the Convention of the State Grange at Worcester, of which he is the Chaplain.

—The 'varsity foot-ball officers for next fall are: H. A. Paul captain, V. A. Gates, business manager, and P. W. Brooks, assistant business manager.

—Professors Paige and Maynard attended the meeting of the State Board of Agriculture at Worcester last week. Prof. Paige gave an address before that body.

—At a recent meeting of the sophomore class the following officers were elected: W. E. Allen polo captain, J. G. Cook, basket-ball captain, P. W. Brooks, base-ball captain.

—The Boarding Club has elected the following officers: Gamwell, pres. and 1st. director, Leslie vice pres. and 2nd. director, Chickering secretary and 3rd. director, Morse, Hall, Robinson and Gay the remaining directors.

—The two upper classes have elected four men each to manage the Junior Prom. The men chosen are as follows: of the seniors, Rice, Whitman, Leslie and Chickering; of the juniors, Claflin, Kinney, Gates and Paul. This is the chief social event of the winter term and no effort will be spared to make it a success.

—The *Entomologist's Monthly Magazine*, published in London and recognized as the leading authority on entomological subjects, pays a very substantial tribute

to the entomological course offered here, and to Dr. H. T. Fernald, by printing in its issue for this month an outline, "as a sample of thoroughness of a course in entomology, and especially its economic side as taught in one of the principal Agricultural colleges of the United States."

THE FORENSIC CLUB.

The lively interest which has been manifested at the meetings of the Forensic Club affords those who undertook the movement considerable encouragement. Four interesting debates have been held with a fair attendance at each, and in every case with a good deal of animated discussion. With the opening of the winter term the work of the club will be continued along the same lines, and it is hoped that more men will signify their intention of joining the society and of lending their help towards advancing the work of the club. An increase in the active membership will greatly help on the work. The following debates have been held since the club was organized:

November 21st., subject, "Resolved that the 'cut system' of the Massachusetts Agricultural college is a just system." Barry, 1901, and Franklin, 1902, for the affirmative; Henry, 1901, and M. H. West, 1903, for the negative. The affirmative won both on the merits of the argument and on the merits of the question.

November 27th, subject, "Resolved, that a gold standard is for the best interests of the United States." Whitman and Casey, 1901, for the affirmative; Barry, 1901, and Knight, 1902, for the negative. The affirmative won both on the merits of the argument and on the merits of the question.

December 5th, subject, "Resolved, that the government should own and operate the coal mines." Gordon and Bridgeforth, 1901, for the affirmative; Henry and Casey 1901, for the negative. The negative won on the merits of the question, the affirmative on the merits of the argument.

December 12th, subject, "Resolved, That the government should own and operate all natural monopolies." Chickering, 1901, and D. N. West, 1902, for the affirmative; Rice and Todd, 1901, for the negative. The vote on both the merits of the question and the merits of the argument resulted in favor of the negative.

THE NATURAL HISTORY SOCIETY.

A TRIP TO THE ASBESTOS MINE AT WEST PELHAM.

Very seldom is a college man urged to give less time and energy to his college work. When such is the case, the best remedy would usually be not less study but more out-door exercise.

Foot-ball men, tennis players and golfers rarely over-study but there is a large number of students who do not get sufficient physical development to give the sound body for the sound mind. The universal excuse, and a conscientious one, is that studies crowd out the open air exercise.

The Natural History Society of the college, recently reorganized, has for one of its objects excursions which shall be so instructive that the student shall not consider the time ill-spent and at the same time shall be given a walk which will tend to place body and mind in a better condition for the work which he has awaiting him on his return.

The recent trip to the asbestos mine at West Pelham was made with this two-fold purpose in view. The weather was ideal and the frosty morning air made one literally feel the blood course through his whole being. As the ascent was made the Berkshires loomed up more and more in the West, Mount Greylock, easily the peer of them all, raising its snow-capped summit 2300 feet above sea-level. Mount Toby and Sugar-loaf on the North and Holyoke and Tom to the South completed a panorama not soon to be forgotten.

Familiar as we are with the almost daily use of asbestos it is very interesting to see the raw material *in situ*. Several hundred tons have been removed from the mine for use in paint and paper, but at present it is not worked. It is possible, however, to see the asbestos in the condition in which it is most valuable, although not in very great quantities. Impure asbestos may be seen in abundance and a closely related mineral known as anthophyllite which may have been derived from olivine, also found in the mine. Biotite, mica and tourmaline may be found readily magnetite, opatite and nodules of corundum are known to have been formed here. This mine is in the "Monson gneiss" section of Professor Emerson and so it is not surprising that on the journey back to Amherst many samples of the so-called "Pelham Granite" were found. North of the West Pelham

church there were indications of drumlins in which something of the structure could be seen.

The few who made the expedition felt well repaid for their exertion and it is hoped that the same trip may be taken later by those who were unable to accompany the party.

PORTRAITS.

During the past week the Chemical Department has been presented with a collection of portraits of noted chemists. They are elegantly framed and are enlargements of actual photographs. The pictures, including frames, are 24 by 30 inches in size, and, when hung in the halls and lecture room of the laboratory, will serve not only to adorn the walls but to inspire the students with higher ideals and give them incentives to work. The educational value of continually coming in contact with the faces of men who have been the founders of a science or who are now advancing it is beyond estimating. The first group includes Professors Wöhler of Göttingen, Chevreul of Paris, Kolbe of Leipzig, Kekulé of Bonn, and V. Meyer of Zürich, Göttingen, and Heidelberg, none of whom are living. Of the long list of workers in chemistry to-day the following are some of the most famous both because of work accomplished and also for that in which they are now actively engaged: Professors Baeyer of Murrich, Hempel of Dresden, Liebermann and Landolt of Berlin van't Hoff of Amsterdam and Berlin, Tolens of, Göttingen, and Emil Fischer of Würzburg and Berlin. All of these, twelve in number, will soon be seen on the walls of the Chemical Laboratory.

Alumni.

'88.—Prof. F. S. Cooley has returned from a visit to Chicago where he attended the International Stock show. The Professor has contributed to the progress of the Century series a very interesting paper on the "Progress of Agriculture in America."

'89.—C. S. Crocker of the Darling Fertilizer Co., Pawtucket, R. I., spent a few days in town recently in the interest of his company.

'90.—F. O. Williams and M. H. Williams, '92, have formed a company to supply Sunderland and the surrounding towns with water under the name of the Sunderland Water Company.

'91.—Born, Aug. 3d, a daughter to Mr. and Mrs. W. A. Brown of Springfield, Mass.

'91.—The announcements of the marriage of C. H. Johnson to Miss Louise Cox of Dorchester, Mass., are now out.

'92.—F. G. Stockbridge was married to May Elizabeth Morrison of Rye Beach avenue, Harrison, N. Y., Nov. 22. Mr. Stockbridge spent a few days in town recently.

'93.—L. W. Smith of Monteno, Ill., has shown himself a very able farmer, having made a record in the rye crop last season, producing 405 bushels of cleaned rye on eight acres.

'94.—Dr. E. T. Dickinson of Northampton spent Thanksgiving-day with friends in Amherst.

'94.—C. H. Spaulding of Harvard has leased his farm to F. H. Brown.

'95.—E. A. White, formerly of the Baron de Herst School, will occupy the position of assistant professor of Horticulture at the Agricultural College and assistant Horticulturalist in the Experiment Station.

'95.—Wright A. Root of Northampton spent a few days in town recently.

'96.—Albin M. Kramer, draughtsman, with Eastern Bridge and Structural Co., Worcester, Mass. Address, 58 Front Street.

'96.—F. H. Read has resigned his position in the Woonsocket High School to accept a more lucrative position in the English High School in Providence. The following editorial appeared in a recent issue of the Woonsocket, (R. I.) *Evening Call*: "We regret to hear that Mr. F. H. Read, teacher of commercial branches at the Woonsocket High School, is going to leave us. He is one of the ablest instructors ever employed in this city and the loss will be severely felt. The Providence High School, to which he goes, has secured in him a distinct and valuable acquisition. The change from Woonsocket to Providence will afford a larger field of opportunity and one which he fully merits." Also from a Woonsocket daily: "Not only the High School, but the city of Woonsocket is thus to lose the services of a valuable and efficient teacher. Mr. Read came to this city from New York, where he had been a teacher in a business college, his branch being bookkeeping. This is his third year of service in this city and his loss will be keenly felt by all, and especially the High School pupils with whom he was quite popular."

'96.—F. E. DeLuce spent a few days in town recently.

'98.—C. G. Clark has accepted a position in South Deerfield.

'98.—W. S. Fisher spent Thanksgiving-day in Amherst.

'98.—We have been informed that A. G. Adjemian has not returned to Turkey as published in a recent issue. His present address we do not know.

'99.—H. E. Maynard spent the Thanksgiving vacation at his home in Amherst.

'00.—G. F. Parmenter is now acting as assistant in the department of Foods and Feeding, Hatch Experiment Station.

'00.—F. H. Brown has leased a fruit farm in Harvard Mass., which he will occupy Jan. 1. 1901.

L. C. CLAFLIN, Editor-in-Chief.

R. W. MORSE, Business Manager.

THE "INDEX,"

(VOLUME XXXII)

PUBLISHED ANNUALLY BY THE JUNIOR CLASS.

TO THE PUBLIC:—We wish to announce that the Year Book of the Class of 1902 is being compiled and that time, thought, work, and money are not being spared to make the XXXII Volume of the *Index* an accurate summary of the past college year and the mouthpiece of college thought and sentiment; as well as an ornament and a credit to our college.

To interest in the 1902 *Index* all who are interested in "Old Aggie" is the hope of

THE 1902 "INDEX" BOARD.

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NO. 7

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LIFE'S DIRECTORY.

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Editorials.

THE editors expected to publish in this issue a report of the banquet of the Massachusetts Agricultural College Club of New York, held in New York City, December 7th, 1900, but were disappointed in not receiving the report which had been arranged for. They regret that no account of the dinner can be given in this number.

WE are interested to note that an appropriation of money to paint the College buildings has been asked for. The buildings are certainly in need of repairs and we are sure that a thorough painting would greatly add to the attractiveness of the buildings and the grounds. Another clause which is of great interest to the undergraduates is that providing for bathing facilities in our gymnasium. This is something for which we have now waited a long time; it is that without which the Drill Hall has been notably incom-

plete for gymnasium work and indoor track athletics.

WE learn that the management of the Track Team is ready to adopt some plan for arranging an interclass athletic meet in the Drill Hall. If some plan is to be arranged it would seem best to take some action regarding it very soon, that the meet may come off before the track is torn up for the Military Ball. If sufficient enthusiasm is shown the plan may be carried through with very little trouble, as most of those who will enter as contestants will probably have had sufficient training in what regular track work they had previously been doing. A meeting will probably be held in the near future to decide upon what may be done. Those who are interested are requested to be thinking the matter over.

THE appropriation bill now before the Legislature contains a clause which is of especial interest to all members of the College. It asks, among other things, for money for a new boarding-house. Those

who have interested themselves in the matter have our deepest gratitude. Our hearty thanks and best wishes go with President Goodell in his efforts in behalf of this bill. For a long time a new dining-hall, with modern facilities, has been a vision for certain artists of the fanciful who dared to look ahead to the time when "brighter worlds" should unfold. The first grey light of the dawn of this happy time seems really to be here and all of us must rejoice that it is so. The creation of fancy is assuming substantial form; we may look about us and say truly, "It is good."

THE division of the College year into semesters instead of terms has brought about some changes which we think are very desirable from the students point of view. The College year has been shortened, two weeks having been taken from it and added to the long summer vacation, which according to the new arrangement will extend to the latter part of September. The old plan of opening the fall term at the beginning of the month proved very inconvenient to many students, particularly those who depended upon what they could earn during the summer vacation to pay college expenses. It was principally because of the students that the change was made, and we think that the new arrangement will prove quite satisfactory. The principal change in recess periods is in the spring vacation which has been shortened to a few days. The vacation at Christmas, the time on the whole most satisfactory for the longest recess, remains as formerly. The fall semester closes February 5th, and the spring semester begins February 6th. The time of commencement remains unchanged. The new system goes into operation at the beginning of the next college year; college exercises for the remainder of this College year will follow out the old plan. In addition to whatever convenience may accrue to the students because of the new arrangement, it is thought that the plan will afford a much more satisfactory basis for arranging the studies than was possible under the old. We trust that it may prove so and that any change in courses, or their arrangement, may be such as shall strengthen under-classman work in anticipation of more advanced work in the junior and senior years.

FACES IN THE FIRE.

(Competitive.)

It was a cold wintry night. Outside the tiny snow flakes were falling fast and the wind whistled among the naked trees. Inside the great chunks of wood burned brightly in the fire place and everything seemed cheery and comfortable.

Before the fire sat a white haired man watching the sparks as they chased each other up the wide-mouthed chimney. The perfect stillness which reigned in the room and the cheerful light thrown out by the dancing flames threw their influence over the old man and he seemed to see visions as he gazed into the fire; visions which took him back many years to the time when he was young and full of hope and aspiration.

As he gazed the dearest face in all the world seemed to rise up before him; not beautiful as the world counts beauty but yet made beautiful in the eyes of the dreamer by the tender memories surrounding it. Gentleness, patience and love shone out in every line of the careworn face. It was the face of his mother. He remembered how kind and patient she had been with all his childish pranks, how she sympathized with him in all his troubles, and how her love had followed him like a guardian angel.

After a while, like a dissolving view, the face vanished and he saw in its place the faces of his childhood playmates, their bright eyes beaming upon him from out the merry fire. How the memory of those days rushed in upon him! He seemed to see the happy boys and girls as they trudged together to the little white school-house in the village. He remembered the duties and pleasures of his early school days. How he and Will had figured on their slates and struggled with other lessons which were never easy to learn. They had seemed like mountains in the eyes of the lads, but by perseverance they had been mastered; preparation had been gained for the more complex problems of life.

As the fire burned on, the childish faces faded away and the friend of his college days rose up before him. It was the same faithful Will who toiled with him over the sums of his childhood days. Many a jolly time they had enjoyed together during those happy days, and together they had built castles in the air. How ambitious they were as they looked forward to lives of usefulness and influence in the world! Ah,

dear old Will, he has long since fulfilled his mission and gone to his reward. The influence of his noble, manly character comes like an inspiration to the old man, as he sighs for the companion of his youthful days. Then the face of his friend vanishes from his view.

A falling ember suddenly caused a brilliant tongue of flame to issue from the burning logs and in the midst of its glory he saw a face strong and sweet. It was the face of her who had stood a score of years by his side and helped him to bear the burdens of maturity. His heart warmed within him as he thought of the wealth of love which had been his and which had brightened so many years of his life. She has passed on before him and awaits his coming.

As the old man still sat gazing upon the picture before him the face slowly passed out of sight and one by one the faces of his sons and daughters appeared before his eyes. How he delighted in them! He recalled their childish prattle and play, and it seemed but yesterday that they were around him in the old home. But they have grown to manhood and womanhood and now other homes are blessed by their presence.

The fire ceased its crackling and the flames slowly died down. The old man awoke to find the faces of his loved ones gone and he sitting alone in the room with a longing for that home where there shall be no parting and where they shall go no more out forever.

G. A. W.

CAPTAIN ANDERSON'S TRIP.

Captain Anderson arrived home on Tuesday Jan. 8 after a most enjoyable trip across the continent. He started Dec. 17 at 7:20 A. M., and was just seven days going, making a stay of seven days in San Francisco. The route chosen was somewhat circuitous and made the time spent on the way a trifle longer than was actually necessary by a more direct route. This additional time spent in traveling was greatly improved in studying the history and character of the country passed through. A short stop was made at Chicago, which seems to have made a poor impression on the captain's moral sense, thence the route was across Illinois, Iowa and Missouri, stops of a few hours being made at the more important places. Some of this country was very fertile and prosperous while other parts less pros-

perous, seemed to be suffering on account of the liquor laws of the towns and cities.

The fertility of southern Kansas is marked as being a very good example of the result of irrigation and tillage. Here the line entered Colorado, passing within view of Pike's Peak which rises 14,147 feet above sea level. Many interesting facts were learned in this comparatively little explored region; of its history, its natural wonders and its prospects. It is in Colorado that so much red soil is found; indeed this fact gave the name Colorado to that state. The names of most of the towns, cities and mountains of this section were taken from that of a saint or from some name in biblical history.

Ben's Ford, otherwise known as "Hell's-half-acre," was here visited. This is a place of small area, the population of which is made up of outcasts and criminals. It has been said that the proper way of making one's worldly exit at this place is with "one's boots on." Trinidad, a town built entirely of sun-dried brick was also visited.

From Trinidad the route passed into New Mexico through Ratoon Pass where one may obtain the best steak one could wish for. The cliff dwellings of the Pueblo Indians in New Mexico were visited, one having over 1000 compartments hollowed out of the solid cliffs. These cliff dwellings are said to be safe from even the attack of modern artillery. A most remarkable farm was seen here in New Mexico which had an area of nearly two million acres, every part of which was under a high state of cultivation making it one great garden-spot. Starvation Peak is also here in New Mexico. This peak, which rises about two-thousand feet directly from the surrounding plain and is quite inaccessible, is the subject of many Indian legends.

Thence passing over several deserts and the Colorado River the route enters California. Some difficult engineering was required to lay a railroad over this country and "loops" and tunnels were often necessary to scale or descend many of the peaks. Needless "the hottest place on earth" lies among these peaks and ridges.

The captain now arrived at San Francisco after going over a beautiful reclaimed tract of desert. Horses are scarce in "Frisco" for the simple reason that they would be useless in the streets which incline at an angle

which would puzzle a cat to climb. In San Francisco the captain visited many points of great interest, among which were the Golden Gate and the huge rock all "bristling" with cannon, named Alcatraz.

Among the specimens brought home were several chips from the petrified forest of pines near Holbrook.

The Captain's acquaintance with the "Far West" is by no means of recent date. In 1869 he was detailed for government service on the western plains when the country was far less thickly settled than now and was roamed by bands of warlike, marauding savages. Thirty years have made wonderful changes in the appearance of many places with which he was once familiar, and perhaps the not least interesting part of the Captain's talk was the comparison of the old with the new. After a pleasant stay in San Francisco he bade goodbye to the officers of his old regiment, which was detailed for service in the Philippines, and left for home, arriving in Amherst January 8th.

PAN-AMERICAN SPORTS.

The president of the Pan-American Exposition recently appointed a committee on sports, as follows: Jesse C. Dann, chairman, Dr. Charles Cary, J. McC. Mitchell, John B. Olmsted, Charles H. Ransom, Seward A. Simons, Wm. Burnet Wright, Jr.

Soon after its appointment the committee invited the following named gentlemen to act as members of an advisory committee on amateur sports: Hon. Theodore Roosevelt, Walter Camp, C. C. Cuyler, C. S. Hyman (Canada), C. H. Sherrill, A. A. Stagg, Benjamin Ide Wheeler, Casper Whitney. The appointment of this advisory committee emphasizes the desire of the committee to have all amateur competitions occupy the highest possible plane.

The Stadium, with a seating capacity of 12,000 is beautiful in design and promises to be one of the most successful architectural creations of the Exposition. It will surround a quarter mile track with ground area ample for the requirements of all the events proposed.

As to the nature of the athletic events planned, it may be said that amateur sports of all kinds will be encouraged as representing the most desirable of athletic competitions, and the members of the committee on sports, being college graduates, particularly wish to make a special feature of college sports. In

the management of inter-collegiate events, it is the desire of the committee that the various college associations be invited to undertake as far as possible the arrangement of the necessary details connected therewith.

Although amateur sports will comprise a large part of the programme, it is proposed to have such a number of professional events as will allow visitors a opportunity to witness the athletic skill of the best professionals. The character of prizes that will be offered has not yet been definitely determined upon, but the assurance may be given that prizes will be awarded of value as lasting souvenirs of athletic success at the exposition.

It is proposed to arrange a number of college baseball and football games, and it is especially desired by the committee that the Eastern Inter-Collegiate (I. A. A. A.) track meeting be held in Buffalo next year.

An ideal programme might be to hold in the Stadium the Eastern Inter-Collegiate meeting, then the Western Inter-Collegiate meeting; these to be followed by a Pan-American meeting open to competitors in the two previous meetings and to representatives of other Inter-Collegiate associations.

Other Inter-Collegiate events have been considered, such as La Crosse, Cross Country Running with start and finish in the Stadium, etc.

The committee on sports hope that the exposition may have a full college representation. It is proposed to hold many other sports in the Stadium, the A. A. U. Championship, Lawn Tennis, LaCrosse, Cycling, Association Football, Water Sports, Trap and Target Shooting, etc.

AGGIE LIFE

Special No. 1 of December 19th, 1900, contains statements of interest to those in need of an education. It will be mailed, until edition is exhausted, to addresses sent to

**Alumni Advertising Committee,
Mass. Agr'l College,
Amherst, Mass.**

College Notes.

- W. Z. Chase, 1902, has left college.
- Elwood and Raymouth, have joined the D. G. K. fraternity.
- About thirty-two men have entered for the short winter courses.
- F. L. Elsworth, of Holyoke, has entered the freshman class.
- Sawin and Richardson, 1904, are taking the winter course.
- Prof. and Mrs. Babson spent the holidays visiting friends in New York City.
- The Farm department has taken about 200 tons of ice from the college pond.
- The Chemical department has placed combination locks on the cupboards in the junior laboratory.
- Those freshmen having joined the Q. T. V. fraternity are: Witt, Baker, Kelliher, Lewis, Graves and Collins.
- The following freshmen have joined the P. S. K. fraternity: Griffin, White, Gay, Couden, Haffenraffer, Thompson and Allen.
- The committee in charge of the Boston Alumni banquet has arranged a program without set speakers, a new departure which will probably meet with general approval.
- A new transformer is soon to be placed in South College, the old one having a capacity for running about eighty lights whereas over one hundred have been burned steadily.
- President H. H. Goodell, who recently returned from an important business visit in Washington to attend to the appropriation bill now before the Legislature, has again returned to Amherst.
- The date fixed for the Junior Prom. is Wednesday, Feb. 13. Twelve pieces of Warner's orchestra of Northampton will furnish the music. P. C. Brooks has charge of the hack arrangements.
- The following officers have been chosen by the members of the Forensic club: President, T. Casey; 1st vice-president, R. W. Morse; 2d vice-president, M. H. West; secretary and treasurer, J. H. Chickering.

—In a little pamphlet published by the S. S. McClure Co. of New York city we find the name of Herman Babson as a contributor. The Professor's article is a story of sentiment entitled "Jim."

—The class of 1902 has elected the following officers: President, A. L. Dacy; vice-president, H. L. Bodfish; secretary and treasurer, J. C. Hall; basketball captain, J. M. Dellea; sergeant at arms, H. E. Hodgkiss.

—The Alumni advertising committee has made a reprint of the AGGIE LIFE issue of Dec. 19th, for distribution throughout the state. Names of all persons to whom the reprint may be of interest should be sent to Belden, Bodfish, Cook, or Dacy, 1902.

—C. A. Tinker, 1903, has left college for the remainder of the College year; he will enter again next fall. He is now preparing, under the direction of the Agricultural department, illustrative charts which will be a part of the College exhibit at the Exposition at Buffalo.

—The next meeting of the Chemical Club will be held Monday evening, January 28th in the Chemical Lecture room at 7-30 P. M. sharp. The subject of the meeting will be the life and work of Kolbe. A cordial invitation is extended to all students interested in chemistry.

—A course in Geology has been arranged for the spring term of the junior year under the instruction of Professor Howard, although Professor Lull will take charge for the first term. Some lectures will probably be given on this subject during the winter term by speakers of the College Lecture course.

—The following men from the class of 1904 have joined the Shakespearean club: D. W. Kirby, A. L. Peck, J. F. Cummings, H. C. Pierce, J. A. Pease, R. A. Quigley, E. A. Back, S. B. Haskell, R. S. Handy, P. F. Staples, S. R. Parker, J. J. Fahey, L. W. Hill, H. D. Newton, H. L. Barnes, J. W. Gregg, E. T. Esip and F. F. Henshaw.

—"Resolved, That the retention of the Philippines as colonies is for the best interests of all parties concerned," was the subject debated by the Forensic Club at their meeting last Wednesday night. Affirmative, J. B. Henry and M. H. West. Negative, H. L. Knight and W. W. Peebles. Critic, T. Casey.

Judges, J. H. Chickering, R. W. Morse and M. A. Blake. The decision was in favor of the negative, both sides having shown much thought and careful preparation.

—Professor Lull, who is a member of the Society of the American Museum of Natural History, spent the holiday vacation in New York city pursuing advanced research in Paleontology in the Department of Paleontology of the Museum. It will be remembered that Professor Lull accompanied an expedition sent out in the summer of 1899 by the American Museum, Department of Paleontology, for field work in the Bad Lands of Wyoming.

—A large collection of insects has been sent to Dr. Charles H. Fernald with a request for description of new species. At the request of one of the European journals Dr. Fernald has also undertaken to prepare a paper on the growth of entomology in America during the past century. He is also busy with a monograph and catalogue of the Pyralidæ of North America. As soon as the above works are out of the way he will devote his time to the preparation of a monograph of the Tortricidæ of the World, a family of Lepidopterous insects to the study of which he has devoted much time during the last twenty-five years.

—The plan of the faculty for a change in the college year was adopted by the trustees. There will be two semesters instead of three terms. The first semester will begin Thursday, Sept. 19, 1901, instead of Sept. 5, thus making the summer vacation two weeks longer than formerly. Only one day will be given for Thanksgiving, instead of five days as formerly. The Christmas vacation will last two weeks, from Dec. 19 to Jan. 2, 1902. The first semester will end Feb. 5, the second will begin Feb. 6, and will end commencement day, Wednesday, June 18. This change will reduce the number of exams. from three to two.

THE NATURAL HISTORY CLUB.

The Natural History club is arranging for a series of lectures to be given before the students during the winter. A committee is at work preparing a program which it hopes to complete at an early date. It is also planned to have a program of meetings of the Club at which papers will be read by members of the Club.

BEFORE THE LEGISLATURE.

An important appropriation bill providing for necessary improvements and repairs upon the College grounds, has been introduced into the Legislature and has been referred to the committee on Agriculture. The bill contains provisional clauses as follows: For the painting of the College buildings; for putting in bathing facilities in the gymnasium; for making repairs in the laboratory of the Department of Vegetable Pathology; for making repairs in the Botanical Laboratory; for building additional cases in the Botanical Museum; for building for the students a new boarding-house.

FORENSIC CLUB.

The officers for the winter term have been elected as follows: President, Thomas Casey; vice-presidents, R. W. Morse and M. H. West; secretary and treasurer, J. H. Chickering.

The first regular debate of the term was held Jan. 9, the subject being, "Resolved, That the retention of the Philippines as colonies is for the best interests of all concerned." The affirmative side of the question was taken by J. B. Henry and M. H. West; W. W. Peebles and H. L. Knight were the speakers for negative. Mr. Henry opened the discussion by giving an account of the present condition of the Philippines and the plan to educate the people of the islands. Mr. Knight was the first negative speaker. He showed wherein the U. S. was erring in taking freedom from the Filipinos: for centuries they fought with Spain for freedom and now the United States is taking it from them.

The next speaker was Mr. West. He quoted from Senator Beveridge saying that of the five million Filipinos there were not a thousand who were capable of setting up a government of their own and that we should educate them until they are fit to govern themselves. The last speaker, Mr. Peebles, refuted the arguments of his opponents and then said that the Filipinos helped the United States in her war with Spain. When they had freedom within their grasp another country stepped in and took it away. The American colonies rose against England for freedom and have now forgotten the principles for which they fought.

It was an exceedingly interesting debate. The

judges decided in favor of the negative speakers. T. Casey acted as critic for the evening. His principal criticism was that the speakers did not adhere to the subject.

It was suggested that the night of the meeting be changed from Wednesday to Tuesday of each week. As it is necessary to bring up any proposed change in the constitution one week previous to definite action the matter of change of night will be considered and voted upon at next meeting.

SOCIAL GATHERING.

A committee of delegates from the different fraternities acting with a committee from the ladies of the faculty are arranging for a social gathering to be held in the chapel, Friday evening, January 18th at 8 o'clock. A program consisting of a talk by Miss Goessmann and several numbers of music will be followed by an informal sociable and refreshments. It is earnestly hoped that all connected with the College will avail themselves of this opportunity to forward the interests of our social life. Electric cars for the convenience of guests will run as follows: For the college from the Amherst House 7-35; from the college a special car at 10-35.

CHEMICAL CLUB.

A meeting was held Monday evening Jan. 7. The programme consisted of a talk by Professor Howard on "The Philosopher of Organic Chemistry, August Kekulé," a study of portraits of eminent chemists and a social good time. Professor Howard said in part:

A diligent youth excelling in Mathematics and drawing, at first choosing architecture for his life work, Kekulé went to the University of Giessen where under Liebig's instruction he soon became interested in Chemistry. He confined his intellectual forces and, becoming an architectural chemist, he designed and worked out theories which should explain and bring into line various compounds and reactions which were not, in his time intelligible.

Some important ideas were advanced by Kekulé namely, "The Linking of the Carbon Atoms" and "The Benzene Ring." Based upon these have been the work of the past quarter century of research in

Organic Chemistry and our present theories as to constitution of compounds.

Industrial and Theretical Chemistry are thus what they are because of Kekulé's contributions to the science. Among his students have been Baeyer, Hübner, Körner, Sadenburg, Sinnemann, Wickelhaus, Carey Foster, and Dewar at Ghent, and Anschütz, Bedsen, Bernthsen, Carnelly, Claisen, Dittmar, Franchimont van't Hoff, Klinger, G. Schultz, Thorpe, Wallach, and Zincke at Boun,

WINTER COURSES.

ENTERING CLASSES.

Dairy Farming, Partial Horticulture, Entomology.
Dickinson, Robt. J., Woodbridge, Ct.
Eaton, Benjamin E., Brockton.
Gillette, Dwight L., Cheshire, Ct.
Gibson, Howard L., Groton.
Raddins, Charles M., Groton.
Stockpole, Benjamin H., Hallowell, Me.
Streeter, Charles W., Ludlow Centre.
Tupper, Bertram, Barre Plains.
Whitney, Frank J., Amherst.
Yale, Walter L., Meriden, Ct.

Dairy Farming, Partial Horticulture.
Allen, G. Howard, Auburndale.
Bartlett, Dwight S., Belchertown.
Chase, Frank W., Westboro.
Child, William C., Woodstock, Ct.
Crouch, Archie A., Worcester.
Dunbar, Charles E., Orange.
Harlowe, Ward A., Cummington.
Purnes, Goeffrey V., Bedford.
Richardson, H. G., Woburn.
Willis, George W., North Amherst.

Dairy Farming.
Billings, Harry H., Amherst.
Richardson, Charles H., Boxboro.
Sawin, Ralph D., Boston.

Dairy Farming, Entomology.
Hammond, Merle Kimball, Onset.
Williams, Carle L., North Orange.

Horticulture, Chemistry, Zoölogy.
Munson, Edward M., South Dartmouth.
Wood, Leroy E. S., Upton.

Dairy Farming, Entomology, Extra Veterinary.
Hunt, Thomas F., Weston.

Dairy Farming, Horticulture.
Richardson, Harlan L., Boxboro,

Dairy Farming, Partial Horticulture, Chemistry.
Scott, Alexander, Boston, (Yale '96.)

*Dairy Farming, Partial Horticulture, Entomology,
Extra Veterinary.*

Smith, Lawrence B., Groton.

Horticulture, Zoölogy,
Back, Ernest A., Florence.

*Dairy Farming, Partial Horticulture, Entomology, Extra
Agriculture.*

Mead, Philip H., Silver Creek.

Y. M. C. A.

A DAY OF PRAYER.

Sunday, February 10th, 1901, has been appointed as the Universal Day of Prayer for Students. Some observance of the day will probably be made by the local Y. M. C. A. and a speaker will probably be secured.

This day was designated by the general committee of the World's Student Christian Federation and is endorsed by the International Committee of Young Men's Christian Associations and by the American committee of Young Women's Christian Associations, and will be observed throughout the 1,000 Associations which constitute these movements, as well as by the Christian student organizations of all other lands. Thus it establishes a union of prayer between the students of every denomination in every country of the world.

This day is not intended to supersede the day of prayer for colleges which has been designated by a number of denominations, but has been selected because it is the only day on which the students of all countries of the world could unite. In the case of denominational colleges the committee has suggested that the day appointed by their church be observed.

The following general call has been issued:

THE CALL TO THE UNIVERSAL DAY OF PRAYER FOR STUDENTS.

The General Committee of the World's Student Christian Federation at their meeting held in Versailles, France, in August, 1900, appointed Sunday, February 10th, 1901, as the Universal Day of Prayer for Students. The committee

which has appointed this day includes official representatives of the Christian student movements of Germany, Scandinavia, Great Britain, France, the Netherlands, Switzerland, the United States, Canada, Australia, South Africa, as well as Japan, India, Ceylon, China, and other mission lands, including 1,400 student societies, with a membership of 65,000 students and professors. During the past three years this day has been observed in over thirty different countries by Christian students and by people specially interested in the work of Christ among students.

To ensure the most fruitful use of the day the following points should be emphasized:

(1) Let the Christian students of each university and college take advantage of this opportunity both by entering into the heritage of the prayers of Christians all over the world on behalf of students, and by putting forth wise, earnest effort; and let the day give a marked impetus to the work of Christ among students. It should be characterized, as in other years, by real spiritual awakenings.

(2) Wherever practicable let the Saturday preceding or the Monday following Sunday, February 10th, be devoted by the Christian students to special meetings and to personal dealing.

(3) The prayers of the Church should be enlisted on behalf of the progress of Christ's Kingdom among students. To this end let the Call to Prayer, together with facts regarding the student movement, be printed in the religious papers. Let clergymen be requested to preach sermons in the interest of the spiritual welfare of students, and to call forth more prayer for students.

(4) Let the primary object of the day be borne in mind and realized; the promotion of intercession on behalf of students. The great need in all parts of the student world is that of a mighty manifestation of the power of the Gospel of Jesus Christ. The Word of God and the history of the Church prove abundantly that such a work of the Holy Spirit is a direct result of definite, fervent, and believing prayer.

On behalf of the General committee of the World's Student Christian Federation.

Karl Fries, Chairman,

Stockholm, Sweden.

John R. Mott, General Secretary,

3 West 29th Street, New York City.

December 1, 1900.

AGGIE LIFE.

SPECIAL NOTICE.

At a meeting of the AGGIE LIFE board of editors held Jan. 11, 1901, the following amendment to the Rules and Regulations of the Board was adopted, upon the recommendation of the committee on amendment:

Competition for positions on this Board shall be open to all students of this college and contributions

are solicited at all times. All such contributions shall be considered in the election of new men. In addition to this competition recommendations from the English department shall, whenever the Board deem it advisable, be submitted not later than March 1st. The list of those thus recommended together with those who have previously contributed shall be published in the following issue of AGGIE LIFE. The men whose names are in this published list may then become eligible by submitting at least one additional article before the closing of the competition on March 21st. The election of new members shall then be made, on the basis of merit and ability, from the list of those who thus become eligible; it being understood that in all cases of doubt the preference shall be given to those who contributed prior to March 1st.

In the case of vacancies occurring after the annual election the same procedure shall be followed except that the date for the receiving of recommendations and the closing of competition shall be decided by the Board.

At a meeting of the senior members of the Board, V. A. Gates, 1902, was chosen assistant editor, A. L. Dacy resigned.

Intercollegiate.

Seven out of the twenty foot-ball captains for the last season played at end, five at halfback, four at fullback, four at guard, two at quarter, three at tackle and none at center,

Harvard has decided to give up her Veterinary School, on account of the small number of students and a lack of funds. It is the first time in Harvard's history that any department has had to be abandoned.

The main barn of the Rhode Island Agricultural College was recently burned to the ground. It was feared for a time that the flames would spread to the remaining buildings, but the efficient work of the cadet battalion saved all except the main structure and the loss is comparatively small.

The total registration at Smith College is 1146. The catalogue further shows that but seven students were obliged to leave the college last year on account of scholarship. This is about one in 150 which indicates that the stories so current about wholesale "flunking" are slightly exaggerated.

It costs the athletic management of Columbia no less than \$20,000 a year for the rent of an athletic field and as a result the receipts though very large are insufficient to pay expenses. Purchasing an athletic field has been contemplated, but the most available area consists of but two blocks and the price asked is only \$2,000,000.

Students of St. Lawrence University are making an effort to have college songs introduced into the morning chapel service, on the plea that such daily procedure will intensify college spirit. An inter-fraternity agreement such as we now have whereby men cannot be pledged during the fall term is also being discussed and is in a fair way of being adopted.

A radical change has been made in the conditions exacted of professors at the Andover Theological Seminary. Heretofore every instructor has been obliged to subscribe to the Nicean Creed, and the conservative element has doggedly opposed any change. They have had to give away at last however, and henceforward no such pledge will be required.

The recent death of Rev. John G. Fee, the heroic founder of Berea College brings to mind the stirring history of that institution. Established in the mountains of Kentucky by Northern men just prior to the civil war, it had no small influence in holding Kentucky loyal to the union. Numerous attempts were made by the Southerners to break it up, and its organizers had many thrilling escapes. During the war indeed it was obliged to suspend; but on the close of the struggle it again resumed its work and was a powerful influence during the reconstruction days. To-day it stands as one of the notable institutions of the South.

FRATERNITY CONFERENCE.

The Conference met on Friday evening, January 11th, to consider a communication from the ladies of the Faculty. The following is an abstract:

"The ladies of the Agricultural College Faculty will unanimously and heartily coöperate with the Fraternity Conference in arranging for a College gathering."

The Conference expressed itself as unanimously in favor of coöperating with the ladies in arranging a gathering and voted to recommend to the several fra-

ternities that a committee of two from each fraternity be chosen to represent that fraternity in a general committee, consisting of eight men, which should meet with a committee from the ladies of the Faculty and arrange a programme. The Conference voted, also, to recommend January 18th as the most suitable date. The chairman of the Conference was chosen temporary chairman of the committee to act until it should organize and elect a permanent chairman. Copies of the communication were sent to each fraternity for approval.

MEMBERSHIP.

D. G. K. Fraternity.	{ Dr. C. Wellington, J. B. Henry, 1901, J. M. Ovalle, 1901.
Q. T. V. Fraternity.	{ Dr. J. B. Paige, R. I. Smith, 1901, J. H. Todd, 1901.
Phi Sigma Kappa.	{ Prof. F. S. Cooley, A. C. Wilson, 1901, J. H. Chickering, 1901.
Shakespearean Club.	{ A. C. Monahan, C. E. Gordon, 1901, H. L. Knight, 1902.

LIBRARY NOTES.

Two interesting books of fiction have lately been added :

Boy, by Marie Corelli is an excellent character sketch. It is the life history of a boy born and brought up under unpromising circumstances, to say the least. He is sent to school in France and afterwards enters the army ; while in service to his country he is killed. He has many bad traits inherited from his father but the few good qualities, at times, shine out with a wonderful lustre and completely overshadow the others.

Gentleman from Indiana, by Booth Tarkington. A story of a college graduate who seeks his fortune as the editor of a paper in a western town. The threads of a love story which serve to relieve the monotony of the book, can be detected running through the whole. The book is well written, the plot is well carried out which makes it all very interesting. When once the reader begins the book there seems to be no halting place and it is his desire to read it through. There is no place where the interest lags.

We will give a short account of some of the more important scientific works that are new to the library.

The Fundamental Laws of Electrolytic Conduction, edited by H. M. Goodwin, Ph. D., assistant professor of Physics, Massachusetts Institute of Technology. In this volume are collected those papers on electro-chemistry which contain the original statement of the fundamental laws and experiments on which the modern theory of electrolytic conduction is based. Faraday's law of definite electro-chemical action and electro-chemical equivalents, first stated in 1834, naturally takes precedence. Second only to Faraday's law, the classical researches of Hittorf on the concentration changes produced at the electrodes during electrolysis, have proved of fundamental significance. Later Kolrausch pointed out the bearing of these papers on his investigations on the electrical conductivity of solutions.

Surgical Operations, by W. Pfeiffer and W. L. Williams, V. S. This book, being especially designed for Veterinary students and practitioners, we will pass over with a few words. It is well illustrated on all the principal points and is highly recommended for practical purposes. It is merely a handbook and the minor operations (sutures, cautery, catheterization, etc.) the instruction regarding instruments and bandaging, as well as the methods of restraint, have not been considered.

Diseases of the Dog and their Treatment, by Dr. George Müller ; translated, revised and augmented by Alexander Glass, A. M., V. S., of the University of Pennsylvania. This book will, perhaps, be of interest to a few only but it is well worth our consideration. In the translation the original has been closely followed but, in the proper places, the translator has added the results of his own observations and also everything of value that has been added to veterinary sciences since the appearance of Dr. Müller's work. Speculations and hypotheses have been almost entirely left out, but plain facts have received careful attention. There are ninety-three illustrations scattered throughout the work ; some of these have been obtained from other works but the majority are original.

THE ZOOLOGICAL MUSEUM.

The increased space afforded by the addition of three new cases to the zoölogical museum has permitted a rearrangement of the specimens on a more

satisfactory and systematic basis. The collection may now be studied in the "natural order."

Extending transversely across the center of the room is a large new case devoted to mammals. On the west side are two other new cases for birds; on the east side the two old cases for mammals. Extending around the room are the narrow cupboard cases which have been entirely rearranged within. Four of the floor cases are partitioned by stanchions or by boards thus greatly increasing the available space for shelves. Each case is marked in large white letters with the name of the class or type to which the specimens belong, and each specimen is accurately labeled.

The museum now contains the following classified collections arranged according to the "natural order:" Type, *Coelentera*; a very full collection of sponges (*Porifera*) and corals; type, (*Mollusca*), with the exception of a few cephalopods, made up of gastropod and bivalve mollusks arranged by genera; type, *Arthropoda*, Crustacea and Tracheata, a large number of lepidopterous insects mounted in cotton or plaster casts and fastened against a red background, make a very attractive exhibit; type *Vermes*, worms, collection small; type, *Echinodermata*, sea-urchins and starfish; class *Pisces*, fishes, very full; class, *Amphibia*, frogs, salamanders; class, *Reptilia*, reptiles very full, an especial feature is the collection of photographs of restorations of some prehistoric dinosaurs; class, *Aves* birds, very full, aquatic, insectivorous, and song, birds of prey; class, *Mammalia*, mammals, the most important and well represented. There are also some skeletons of vertebrate species and some photographs of restorations of prehistoric mammals. There is also a large egg case, and one for the ethnological collection. The cases are all lettered as the specimens are to be catalogued.

CALENDAR FOR 1901-1902.

Jan. 2, Wednesday, winter term begins, at 8 A. M.
Mar. 21, Thursday, winter term closes, at 10-15 A. M.
Apr. 3, Wednesday, spring term begins, at 8 A. M.
June 19, Wednesday, Commencement exercises.
Sept. 19, Thursday, fall semester begins, at 8 A. M.
Dec. 19, Thursday, to } winter vacation.
Jan. 2, 1902, Thursday, }
Feb. 5, Wednesday, fall semester ends, at 8 A. M.

Feb. 6, Thursday, spring semester begins, at 8 A. M.
Mar. 29, Saturday to } spring recess.
Apr. 2, Wednesday, }
June 18, Wednesday, Commencement exercises.

Division of College year into periods :

	Exercise.	Recess.
Sept. 19 to Dec. 19,	13 wks.	
Dec. 19 to Jan. 2,		2 wks.
Jan. 2 to Feb. 6,	5 wks.	
Feb. 6 to Mar. 29,	7 wks. 2 dys.	
Mar. 29 to April 2,		4 dys.
Apr. 2 to June 18,	11 wks. 1 dy.	
June 18 to Sept. 18,		13 wks.
Total	36 wks. 3 dys.,	15 wks. 4 dys.

A GIFT TO THE COLLEGE.

In the will of the late J. D. W. French, a former trustee of the College, is a clause giving to the library of the College, all books and pamphlets in his library dealing with agriculture or horticulture.

BY-LAWS OF THE M. A. C FORENSIC CLUB.

ARTICLE I.

An executive committee consisting of the officers of the club shall be organized with the president of the club as chairman.

ARTICLE II.

The regular meetings of the club shall be held at 7 o'clock sharp.

ARTICLE III.

A quorum shall consist of *ten* members.

ARTICLE IV.

All officers of the club shall hold office for one term subject to re-election.

ARTICLE V.

The regular order of exercises shall be as follows :

Roll call.
Minutes of previous meeting.
News of the week.
Debate or substitutes.
General business.
Adjournment.

Rules of Procedure.

ARTICLE VI.

All questions of debate shall be decided by three judges, chosen by the chair from among the members present.

ARTICLE VII.

A critic shall be chosen by the chair for each debate.

ARTICLE VIII.

A period of *ten* minutes shall be given to each of the principal speakers of the debate, after which there shall be a one minute pause before a principal speaker can be recognized by the chair. After the debate has been thrown open to the house no member shall occupy the floor for a period exceeding three minutes, at any one time.

ARTICLE IX.

For all rules of debate not governed by the By-Laws, "Reed's Parliamentary Rules" shall be considered as official.

ARTICLE X.

These By-Laws shall be subject to change by a two-thirds vote of the members of the club.

Alumni.

The latest list of addresses of the class of '93 was published January first and is a very neat production. We take the liberty to publish the list of addresses as set forth in that last :

Joseph Baker, Riverside farm, New Boston, Conn.

*Fred G. Bartlett, Superintendent of cemetery, corner of Cabot and Sycamore Sts., Holyoke, Mass.

*Henry D. Clark, Veterinary surgeon, 12 Mechanic St., Fitchburg, Mass.

*Geo. F. Curley, Physician and surgeon, 234 Main St., Milford, Mass.

Herbert C. Davis, Railway postal clerk, 93 S. Pryor St., Atlanta, Ga.

Chas. A. Goodrich, Physician and surgeon, 5 Haynes St., Hartford, Conn.

Francis T. Harlow, Farmer, Marshfield, Mass.

*Harry J. Harlow, Farmer, Shrewsbury, Mass.

Ernest A. Hawkes, Evangelist, Fourth and Broad Sts., Richmond, Va.

*Frank H. Henderson, Civil engineer, 334 Cross St., Malden, Mass.

*Edwin C. Howard, Principal of Schools, New Hartford, Conn.

*Franklin S. Hoyt, Supervising school principal of Winchester District, 91 Alden Ave., New Haven, Conn.

Eugene H. Lehnert, Veterinarian, 86 Church St., Clinton, Mass.

*A. Edward Melendy, Farmer, Sterling, Mass.

*John R. Perry, Painter and Decorator, 8 Bosworth St., Boston, Mass.

Cotton A. Smith, Secretary and treasurer, N. B. Blackstone Co., Los Angeles, Cal.

*Fred A. Smith, Florist and nurseryman, 265 Euclid Ave., Lynn, Mass.

*Luther W. Smith, Farm manager, Highland farm, Manteno, Ill.

*Henry F. Staples, Physician and surgeon, Solon, Ohio.

*Luiz A. F. Tinoco, Sugar planter and manufacturer, Campos, Brazil.

*Edward J. Walker, Mixed farming, Box 315 Clinton, Mass.

*Married.

L. C. CLAFLIN, Editor-in-Chief.

R. W. MORSE, Business Manager.

THE "INDEX,"

(VOLUME XXXII)

PUBLISHED ANNUALLY BY THE JUNIOR CLASS.

TO THE PUBLIC:—We wish to announce that the Year Book of the Class of 1902 is being compiled and that time, thought, work, and money are not being spared to make the XXXII Volume of the *Index* an accurate summary of the past college year and the mouthpiece of college thought and sentiment ; as well as an ornament and a credit to our college.

To interest in the 1902 *Index* all who are interested in "Old Aggie" is the hope of

THE 1902 "INDEX" BOARD.

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AMHERST, MASS., FEBRUARY 6, 1901.

NO. 8

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NATHAN DAVIS WHITMAN, 1901, Business Manager.
LEANDER CHAPIN CLAFLIN, 1902, Assistant Business Manager.

Assistant Editors.

CHARLES LESLIE RICE, 1901.
THOMAS CASEY, 1901.
CHARLES MILTON KINNEY, 1902.
RICHARD HENDRIC ROBERTSON, 1903.

JAMES HENRY CHICKERING, 1901.
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VICTOR ADOLPH GATES, 1902.
NEIL FRANCIS MONAHAN, 1903.

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LIFE'S DIRECTORY.

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Foot-Ball Association,	C. L. Rice, Manager.	Base-Ball Association,	C. L. Rice, Manager.
College Boarding Club,	J. H. Chickering Sec.	Nineteen Hundred and Two Index,	R. W. Morse, Manager.
	Reading-Room, C. T. Leslie, Secretary.		

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Editorials.

THERE seems to be prevalent among many of the alumni a feeling that the faculty of the College should be represented at the reunions of the two principal alumni clubs of the college. The students and alumni show their interest at these reunions and why ought not the faculty to show an equal interest? Do these reunions mean anything? We think they do. The possibility of their meaning more and more is certainly dependent upon the enthusiasm and interest shown in them. One way, we firmly believe, by which this interest may be increased is in the sending of a delegate from the faculty to attend these annual reunions. We think that the officers of the Clubs would favorably consider the idea and would make it a point to annually extend an invitation to the faculty to send a representative as their official delegate. No set speeches or long dissertations on the needs of the college, although these things should always be in the mind of our loyal men,

are necessary to make the meeting of those who are supposed to be equally interested in the welfare of the College, a pleasant and profitable one to all concerned.

WE are pleased to notify the public in general that the long-expected 1902 INDEX is out. We suppose that some comment on the character and merits of this recent addition to now the somewhat lengthy list of publications of our College annual is in order. We wish to overcome, if possible, before dwelling on the book as such, some of the prejudice that probably exists because the book has been so long in coming out. The editors have been industrious in their efforts to meet the demand and deeply regret that circumstances prevented them from publishing their annual at an earlier date. With the exception of a few places here and there the book shows carefulness and thoughtfulness in compilation, although there are some evidences of haste, which we think might have been avoided had there been a little more thoroughness. But here again we feel that some indulgence is due

the chief of the board who had to contend with some of that exasperating, not to say galling, indifference which everyone who is placed, or has been placed, in a position similar to his own can attest. While there was some difficulty in hurrying things because of lack of team work yet the principal cause for delay—so we understand—was in the weather which during the fall was hardly propitious for developing many of the plates used in illustrating. If such were the case, of course the conditions must be considered before passing judgment on the long delay. Passing by the data pertaining to the classes and the fraternities, which differs but little from the usual run, and turning to the more distinctly literary part we find on the whole very commendable work. There is considerable verse and a reminiscent account of a class experience, but no attempt at a story. There are the usual squibs in which everybody comes in for the gentle roasting that is supposed to give spice to the subjects' lives. The artistic work is, on the whole, very good. One or two plates show that a good deal of hard work was put on them, with a praiseworthy result. As in past cases there are instances where the matter "would better have been left out." We hope that future classes will profit by public disapproval. The outside of the volume is attractive and the book will make a valuable addition to the library of any student or alumnus. We shall have to leave other interesting details for the peruser. We recommend the book to all, hoping that the Board will receive loyal support, especially from the alumni and students, whose assistance is earnestly requested in the publication of our College annual if the book is to be kept up to a respectable standard in the coming years.

AN EXPERIMENT.

(Competitive.)

We sat before the great log fire, watching the flames rise and fall. We could hear the wind whistling round the corner of the house, and an occasional patter on the window pane, gave evidence of the rain. We could almost hear our own thoughts. The silence grew monotonous.

"Rene, wake up, we're not waiting for pins to drop. Say something."

"Well, Sanborn, I was wishing some one would speak. I don't know what you fellows are thinking of ;

but for some reason as I sit here, I recall the peculiar way in which a young fellow was started in his life work. He is now one of the brightest in his profession, and a rising politician. When we were students together at M—he was one of the dullest fellows in his class. In oratory, especially, he was poor, and didn't seem to care whether he improved or not. I liked him, roomed near him, and we were often together. I tried to spur him on, but each effort proved a failure.

One evening while half a dozen of us were in his room; an idea of helping him, came to me. I had been giving a few tests in hypnotism (you know hypnotism was then in its infancy and in the experimental stage) with the assistance of Gus Horner, when the thought came to me to give Jim an oration while he is hypnotized. I put the thoughts in words and the fellows asked me to try it; there could be no harm in it whatever, and some good might result, and it would be intensely interesting.

Jim was willing to try it, so I placed him in condition to receive the impressions. He was to be, in fact, a human phonograph. I would deliver an oration to him, and have him repeat it, as I gave it to him. I recalled an oration I had delivered in B. on the "Power of Truth" and thought it good for the present case, as it afforded opportunities for fine distinctions in expression. I began, and as I went on it seemed as though some one had hypnotized me, and that I was uttering another's thoughts. I forgot that I was speaking to a few fellows, I thought of my subject, I appealed to the best that is in them, the highest ambitions, the noblest purposes. My whole being was thrown into my words. When I finished, the fellows sank back with a sigh of relief and said they hadn't expected anything like that—in fact I hadn't myself.

We looked at Jim. He sat there silent and motionless, seeming to have no interest in anything, his eyes intently fixed on me. I gave him the proper suggestions, and then brought him out of his hypnotic state. It was very late by this time, so we separated. I had decided to tell Dr. Milbrook in the morning, the reasons for Jim having a different oration from the one first selected, feeling sure that he would make allowances.

In the morning, when our class met in the old assembly room, six fellows were marvelously quiet and

expectant, so much so, in fact, that the fellows began quizzing us, but we were silent. We listened impatiently to the first speakers, and when Jim's name was called, we held our breath. He shuffled to the platform and turned toward us. There was silence for fully a minute. Then he changed. He straightened his shoulders; his eyes flashed; he spoke—but was that Jim's voice? There was no drawl, every word was spoken distinctly, in a clear, firm voice. His gestures were in perfect accord with the thoughts. It was not our old Jim, but a new being that stood before us.

When he finished there was silence; then a deafening applause. There is no need to go into further detail. My experiment was a success. Further development of the same idea made a new man of Jim. Yes, he's one of my closest friends. His name? You have probably heard of Senator B. of M—. Yes, the same Jim.

ARIAN.

ANNUAL DINNER OF THE MASSACHUSETTS AGRICULTURAL COLLEGE ALUMNI CLUB OF MASSACHUSETTS.

The annual reunion, business meeting, and banquet of the Massachusetts Agricultural College Alumni Club of Massachusetts took place at the Quincy House, Boston, Jan. 25, 1901, president Frederick G. May presiding. An informal reception and business meeting was held in the parlors at six o'clock. The report of the last reunion was read by clerk Frederick W. Davis, '87. Treasurer R. B. Macintosh reported a slight unexpended balance in the treasury which it was promptly voted to use in defraying the expenses of the banquet of 1901. Upon vote of the meeting a nominating committee was appointed by the chair to retire and draw up a list of officers for the ensuing year. During the intermission following C. E. Gordon, representing AGGIE LIFE made a few remarks. The committee then reported the following list of officers who were elected to serve for the coming year: President, Dr. Madison Bunker, D. V. S., '75; treasurer, Richard B. Macintosh, '86, of Peabody; clerk, Franklin Ware Davis, '87, Rosindale, Mass., 85 Colberg Ave.; directors, Dr. Edward R. Flint, '87, Frederick G. May, '82, A. H. Cutter, '94.

The business meeting concluded, the company adjourned to the banquet hall where a bountiful spread

was prepared. About fifty members and guests gathered around the festive board, Frederick G. May, '82, presiding. The excellent menu occupied everybody until late in the evening. With the first course the busy hum of conversation began. Many faces were missing whose presence would have greatly enlivened some of the groups, but still there seemed to be everywhere a thorough enjoyment of the reunion of comrades of former days and in the discussion of the old life at the college in whose honor and in the memory of whose traditions they had come together.

The banquet over, the tables were removed and the "social deck was cleared for action," a banjo quartet, led by F. Guy Stanley, 1900, now at the Harvard Medical School, furnished instrumental music, while everybody talked to his neighbor. To the accompaniment of the quartet, several members, led by Mr. Mackintosh, Dr. Woodbury, '89, Mr. James Marsh, '87, and Dr. Bunker rendered a number of selections, in excellent "tempo," from some college song sheets, kindly lent for the occasion.

President May read a note from President Goodell who expressed his regret that he could not be present and extended his greeting to all. Letters of regret were also received from Dr. Goessman, Dr. Wellington, Secretary Stockwell of the Board of Agriculture, and Governor Crane. Hon. Frank A. Hill, Secretary of the Board of Education and Professor S. H. Peabody, were present as guests of the club.

After an hour of jollity and conversation over the cigars President May introduced Dr. Bunker, president elect, who held the attention of the members for a few moments. Dr. Bunker said it had been the wish of several of the older alumni to have present with them that evening some of those who had been instructors in the days when they were students at the college. He had written to Dr. Goessmann asking him to come but the Doctor had replied stating his regret that the recent illness prevented him from leaving home. Dr. Bunker then introduced Professor Peabody as one who, as he expressed it, "entered college with me." It was explained later, however, that the genial doctor entered as freshman when Mr. Peabody came as professor. Professor Peabody was one of the early professors at M.A. C. and has since occupied a professor's chair at the University of Illinois. He was connected with the educational department of

the World's Fair and is now in charge of a similar department in the Pan-American exposition at Buffalo.

Professor Peabody's remarks were chiefly concerning the pleasant recollections which he had of the early years at "Aggie" when he occupied the chair of mathematics. His story of "Who played last," is perhaps worth repeating.

"He referred to the fact that it was customary in college, to 'try a new man.' He did not escape. A joke was passed around in his class one day, and raised a general laugh. He waited until the laugh was over then called attention to the work in hand by saying 'it is a good point, in playing whist, gentlemen, to remember who played last.' The recitation proceeded."

"Later came April 1st. On the morning of that day Professor Peabody had felt impelled to go to his lecture room early. He found it an abode of 'confusion were confounded' everything upside down and out of place. On the black board was written 'who played last?'"

"Professor Peabody seems to have been a man of action. He saw the point, but turned it to suit himself. He set to work, and at the recitation hour the students found the room in 'apple-pie' order, swept and garnished, as it were. On the wall was the same query 'who played last?'"

Professor Peabody was followed by Secretary Hill who spoke briefly in a pleasant vein.

A SOCIAL EVENT.

An informal social gathering, arranged by a committee consisting of delegates from each fraternity, was held in the Chapel, Friday evening, January 18th. A large number of students, several of the professors and ladies of the faculty, and a large company of invited guests were present. The event was in every way successful.

The early part of the evening was spent in a pleasant social way; the company was then treated to a brief, but delightful entertainment which the committee had provided. After one or two selections by Mr. Kinney, '02, rendered on the Chapel organ, and a solo by Mr. Allen, '04, Miss Helena Goessmann entertained an appreciative audience with a most delightful narrative of some of her experiences while traveling in England and on the Continent.

From early childhood, it had been her longing to visit London. The opportunity came. The long voyage across the Atlantic was soon ended and the travelers found themselves on the historic soil of England. The London of her dreams, and the great metropolis which she visited were two quite different things. Perhaps not the least pleasant recollections of the great city are those of the people whom she met there. At an afternoon tea to which she was invited it was her pleasure and good fortune to meet the Duchess of York. This charming lady attracted her attention by the simplicity of her manner and her dress. The Duchess paid a high tribute to the beauty and sterling qualities of American women. Miss Goessmann was everywhere impressed by the simplicity of dress among the women whom she met. She saw the beautiful Queen of Holland, "a repetition of Queen Victoria," and witnessed the very pretty incident of the Queen waving her hand at some children who had succeeded in attracting her ladyship's attention. England she characterized as full of new experiences.

From England the travelers crossed the Channel into Holland, "a new world." From Holland they went to Paris where they arrived while the city was in the high pitch of excitement which accompanied the Dreyfus trial. Bulletins concerning the trial could be seen everywhere. Our speaker felt that Dreyfus might perhaps be guilty, and that though many might go unpunished who were deserving of punishment quite as much as he, yet there was no excuse on that account for pardoning his conduct. She believed that the approaching Paris Exposition was the means of keeping down another violent French revolution.

From France they went to Switzerland. In this delightful country, in a pretty Swiss village, they saw the play of William Tell. It was not unlike the Passion Play, and the parts were taken by the country people. The play is carried on in summer for the pleasure of travelers. It is very attractive and the music is very beautiful. The performance and a moonlight ride upon a charming lake, which reminded the travelers of Venice, made up for the miserable hotel accommodations which they were obliged to endure.

On visiting Germany it was a surprise and a pleas

ure to find the English language very widely spoken. It was Miss Goessmann's pleasure to attend a tea given by some Russian, Austrian, and German ladies at which English was wholly the language of conversation, and it was Miss Goessmann's comment that seldom had she heard better English spoken in our own drawing-rooms. The foreign ladies were somewhat surprised to learn that the education of American women was not altogether that they might put that education to practical use.

In relating of Emperor William our speaker referred to him as not the extreme autocrat that many Americans seemed inclined to consider him, but rather as a serious man with the best interests of his people at heart, and as one beloved by them.

She had a pretty story to tell of how Christmas is observed in Dresden and of the celebration of Carnival time in Munich. Grand and imposing balls constitute the festivities of the Carnival time. The people are carried away by the excitement and often pawn their household necessities that they may secure the necessary means to attend the balls.

The extravagance which the Americans and English have brought into Dresden is wanting in Munich, and living expenses in the latter city are comparatively low.

Miss Goessmann expressed herself as not so favorably impressed by the Paris Exposition as by the World's Fair. The buildings were all Parisian or of French architecture. Unbounded extortion was practiced at every opportunity. After visiting the exposition the travelers set sail for America. The trip had been a pleasant one, the sail delightful, but as they sailed in Boston harbor there was a feeling that half the pleasure of traveling is in getting back home.

After Miss Goessmann had finished the company listened to a solo by Mr. Staples, '04. Refreshments followed, after which the gathering broke up.

ANIMAL LIFE ON THE COAST OF CALIFORNIA.

On Friday evening, Jan. 25, Charles B. Wilson, professor of Zoölogy at the Westfield Normal School, gave a very interesting and instructive illustrated lecture in the Chapel, his subject being, "Animal Life on the Coast of California." He spent the summer

of 1900 on the California coast making a special study of Nemertine worms.

He began his study at Pacific Grove, situated across the harbor from Monterey, and about one hundred and twenty-five miles south of San Francisco. Here he had private rooms at the Marine Laboratory. The beach near which it was situated was one of the best strips of shore on the California coast for zoölogical research as well as social enjoyment. Pacific Grove is known as the Newport of the Pacific coast, and every summer hundreds of people go there to enjoy the excellent bathing and boating. The shore there is exceedingly valuable to the zoölogist on account of its low, rocky formation which is left well exposed at low tide. It is the only good strip of this sort on the coast.

The lobster found there is not so large as the Eastern species but is very similar in appearance with the exception of the tail which is more like a fin. The crabs are very numerous and of a distinct species from those on our coast. The sea urchins are the same as ours but on the whole they grow much larger. The star fish are of a distinct species having "webs" between the points of the star and thus they receive their name, "Web Armed." The Sun and Basket Star-fish are found very plentifully along the coast in shallow pools. Sea-cucumbers are much larger than our eastern species being, from a foot and a half to two feet in length.

Molluscas are very plentiful along the coast and especially near the Marine Laboratory where forty-seven different species were found within a radius of half a mile.

Lying around the bottom of the water is found the Octopus, a very ugly, disagreeable looking creature but perfectly harmless. The sea-anemones are not so plentiful as on the Atlantic coast, but are of a variety of colors and sizes.

Passing across the harbor to China Town, just outside Monterey, one finds one of the most interesting villages in California. The inhabitants are all Chinese who earn their living by fishing. One of the most prosperous trades there is the selling of sea urchin shells. The men engaged in this business build stagings around the roof of their houses and, after being cleaned, the shells are put there to dry. The shells

are sold to manufacturers who make them into combs and other articles which are generally made of shell. The Chinamen sometimes receive orders as large as three thousand and as there is very little expense in gathering the shells they generally make a good deal out of these sales. Others are engaged in fishing for squid. Their boats are very similar to the eastern dory excepting that they are pointed at both ends. They generally go fishing at night and catch their fish by aid of a "jack-light." They take the squid, cut them open and tear out the entrails, then they place them in the fields to dry, after which they are thrown into dirty bags, tramped upon by the barefooted Chinamen, and shipped to China where they are considered a delicacy. The egg cases are larger than the squid itself. After a storm, some of the larger ones, weighing sometimes about thirty pounds, are blown ashore.

The Horned Toad is used here by the Chinaman as a fever medicine. The skin of the toad is stretched over a wooden frame and when any one has a fever, they stick the tail of the toad in a pot of earth and burn ten incense wafers. If this does not relieve the sick person, they grind up the toad and eat it, after which they engage in prayer. This last operation is always known to kill or cure.

The *Chimæra Monstrosa*, or rat fish, is found here and is the missing link between the cartilaginous and bony fish. It lays its eggs in cases similar to our shark, excepting that the case of the rat fish has frills on one end of it.

The fish known as the "Grunter" is another interesting form of animal life found here. The mother fish, instead of laying her eggs in a sensible manner, as other fish do, lays them on the under side of a rock and then goes away and never comes back. The male fish stays around watching the young fish until they are old enough to take care of themselves, then he leaves for parts unknown.

Passing back to Monterey, one finds a town, full of curiosities. It is one of the oldest towns in California and was first settled by the Spanish. The houses are constructed mostly of mud and there seems to be but little signs of advancement. Monterey was the first capital of California and many of the old government buildings are now used for public purposes. It is also the whaling headquarters of California. All the

whalers, before starting off on their four years' trip, come there to fit out their whaling kit. In the center of the town is one of the prettiest hotels in the world. It is built in the form of a hollow square and both the Court and Park surrounding the hotel are covered with every variety of shrubs, trees and plants.

Going north to the Columbia river one would find the greatest interest centered in fishing for sturgeon and salmon. The fishermen cannot catch these fish fast enough with hook and line to satisfy the demands of the market, so they do their fishing by a mechanical method. Four large arms of wood are made in the form of a paddle wheel and covered with nets and then they are placed on the front of a mud scow which is taken out into the stream and anchored. The current being quite swift turns the nets toward the boat and as the fish are always trying to get up stream to lay their eggs, they swim into these nets and are caught. The fish are very plentiful and a catch of fifty is considered a poor days' work.

Going back to Los Angeles one will find the Central Park of great interest on account of its vast beauty and wealth of palms and flowers. The avenues are very beautiful, both sides being lined with the same kind of plants; some with umbrella trees and others with palms.

Just outside the city is a famous ostrich farm where there are over one hundred birds. Most of them are kept in separate pens. Two of the finest ostriches there are Bill and Mrs. McKinley who are very valuable to the owners on account of the excellence of their feathers. The young ostrich, unlike other young birds, cannot stand when first it leaves its shell, and not until it is thirty-six hours old, can it get around on its feet and then it finds great difficulty in keeping its balance. The older ostrich is a remarkably strong bird and is noted for its powerful limbs. The keepers often mount these birds and ride them around the grounds for pleasure. The plucking of these birds is a very hard and dangerous piece of work. It causes the bird great pain to have a feather pulled out and were it not for the hood which is placed over its head, it would be almost impossible to hold it. When a bird is first plucked, only the scraggly feathers are taken out and then better ones grow in their place.

All the slides exhibited were taken by Prof. Wilson and showed his great skill in photography. After the

lecture he exhibited several specimens which he had collected in California among which were the Chimera Monstrosa, Grunter, Tarantella, Horned Toad, Squid, Sea Urchin, Basket and Web-Armed Star Fish.

A.

College Notes.

—Index 1902.

—Junior Prom. Feb. 13.

—Gates, 1902, has recovered from an attack of la grippe.

—Blake, 1902, is confined to his room with measles.

—Invitations, tickets, prelims., etc., for the prom. can be procured from "Iky" Rice.

—President Goodell has recovered from a recent attack of the gripe and is now in Washington.

—Dr. Walker gave a talk on "Eloquence" before the Shakespearean club, Saturday evening, the 19th.

—The Sophomores held their class supper at the Bloody Brook house, South Deerfield, on January 17.

—Professor Tyler of Amherst college recently spoke before the members of the Shakespearean club.

—Allen and Kinney gave several selections at the musicale given at the Amherst house, Thursday evening, the 17th.

—There will be a meeting of the Chemical Club Monday evening, Feb. 18. Professor Howard will talk on Victor Meyer.

—Victor A. Gates, '02, has been elected to fill to fill the vacancy made by the resignation of A. L. Dacy on THE LIFE board.

—R. H. Robertson, '02, has been elected to the AGGIE LIFE Board to fill the vacancy caused by the resignation of C. L. Tinker.

—Prof. R. S. Lull gave an illustrated lecture before the Springfield Zoölogical club, Friday, Feb. 1st. His subject was "Dinosaurs."

—Claflin, Dellea, Bodfish, Co. A., and Saunders Co. B. have received corporal appointments. Allen has been transferred to Co. B.

—Prof. F. S. Cooley, Instructor Barnes, and Charles Trow attended the Connecticut dairymens' meeting in Hartford on the 15th.

—The patronesses for the Junior Prom. are: Mrs. Goodell, Mrs. Ostrander, Mrs. Lull, Mrs. Paige, Mrs. Stone, Mrs. Fernald, and Mrs. Babson.

—Capt Anderson's recent remark that "To to be in style you have to have the gripe," seems to be justified by the number of cases reported in College.

—The Freshmen have elected the following officers: Pres't, Handy; vice pres't, Pease; sec'y and treas., Graves; basketball captain, White; sergeant-at-arms, Kirby.

—Professor W. P. Brooks attended the banquet and reunion of the members of the Mass. Agr'l College Alumni club of Massachusetts, held at the Quincy House, Boston, January 25th.

—The evening of the fifteenth witnessed a highly entertaining snowball fight and rush between the Freshmen and Short Course men. The latter, being disturbed during an agricultural controversy by the entrance of snowballs and various other missiles through the windows, unlocked the door and made a sortie, only to be met by a volley of snowballs that did dire damage in the way of black eyes; but the followers of Agricola met the missiles bravely and hastened to retrieve the debt in kind. At twenty paces both sides hurled snowballs with such rapidity that the space between the writhing black masses of combatants was a white streak. The Freshmen next charged their adversaries; formed again andrecharged. As the "Shorties" weakened other classmen joined their ranks, thus the contest was made to continue interesting. The staid and sober seniors then stopped the battle and bade the warriors be gone. Having piled themselves together and collected stray garments these doughty upholders of Mars retired like lambs to the rest they so well merited.

WORLD WIDE WORK OF THE YOUNG MEN'S CHRISTIAN ASSOCIATION.

The illustrated lecture given in the Chapel last Thursday evening by Mr. J. A. Dummett, Secretary of the State Committee of Massachusetts and Rhode Island, proved highly interesting and instructive. Mr. Dummett has been in association work for the past fifteen years, nine of which he spent in the Pacific North West as Traveling Secretary. His work has taken him abroad as well as to nearly all parts of his own country, and during these travels he has collected

views of association work, buildings and workers from all parts of the globe.

Mr. Dummett opened his talk by giving an ideal of magnitude of the World Wide Work to-day. Then he told of the inception of the organization. One man George F. Williams, gathered around himself eleven other clerks from the store in which he was employed and from this little group of a dozen consecrated, enthusiastic christians has grown the organization which to-day numbers its members by the hundreds of thousands. At the fiftieth anniversary of the association celebrated in London in 1894, George Williams was knighted by Queen Victoria for the noble work which he had done for young men.

The first association in this country was organized in Boston in 1857 and in celebration of its semicentennial anniversary a great Jubilee International Convention will be held in Boston from June 11 to 16, 1901.

The work in cities has yielded results which so appeal to solid business men that they are ready to invest thousands of dollars in erecting buildings and providing equipments and means for carrying on this work for young men and many of these men have testified that this investment in manhood was the best paying investment they could make of their wealth.

Particular emphasis was given to the college association work. A number views were shown of buildings which have been erected expressly for and are entirely devoted to this work. Mr. Dummett showed that the Young Men's Christian Association constituted the greatest undergraduate student fraternity in the world, numbering over 33,000 members in this country alone.

The railroad work has also pushed rapidly to the front and now numbers more members than do the college associations.

The recent development of the work among soldiers and sailors was described and pictures were given showing even better than words could do how much the soldiers appreciate and use the opportunities for reading and writing and for social, homelike amusements which are placed before them by the Young Men's Christian Association.

Mr. Dummett closed with a strong appeal to "*put first things first.*" and to put into our Christian service the same earnestness of purpose, enthusiasm and self-sacrifice that we give to other college duties of less vital importance.

COUNCIL OF THE AMERICAN CHEMICAL SOCIETY.

(Communicated.)

The Council of the American Chemical Society, at its meeting in New York City, June 25th, 1900, decided to celebrate the twenty-fifth anniversary of its foundation which will occur on the 5th of April 1901. The President of the Society, Professor William McMurtrie of New York City, was authorized and directed to appoint a committee, of which he himself should be the chairman, to arrange for the celebration of the event. The committee of arrangements, appointed him in conformity with the action taken by the Council upon the subject, consists of thirty-three members of the Society with Professor McMurtrie as President and Professor Albert C. Hale as Secretary of the Committee.

Dr. C. A. Goessmann, who has been appointed a member of the committee of arrangements for the celebration of the anniversary has also been made a member of a committee of five on History to serve in connection with the celebration of the 25th anniversary of the foundation of the society. The American Chemical Society has gradually grown from a sectional into a national society with a membership of more than eighteen-hundred. The society is, to-day, thoroughly organized for efficient work. Their work includes well edited monthly Chemical Journal containing a record of chemical investigation carried on at home and a brief review of foreign publications in the various fields of chemistry. Any information regarding the management of the society, as far as requirements of membership etc. are concerned, may be secured by applying to Albert C. Hale secretary of the American Chemical Society, 551 Putnam Avenue, Brooklyn, N. Y.

DEPARTMENT NOTES.

Since this is the first appearance of this new departure on the part of the LIFE, a few words of explanation as to its nature and probable scope may not be amiss. In the past, the work of the different departments of our College has received no particular attention, simply being reported from time to time in a haphazard, makeshift sort of fashion, or else being neglected altogether. It was thought that a change in this particular would be advisable in many ways.

Accordingly this column of "Department Notes" was established. Its aim will be to report as fully as possible the work that is being carried on by the College; as for instance, the experiments constantly under way at the Station, the additions to the various museums, as well as the progress of the routine work of the several departments. It is no exaggeration to say that fully half of the time the students do not know what is going on here outside of their own narrow circle. Information which will obviate some of this lack of knowledge ought, it would seem, to be of some slight interest and value to the student body; whereas it certainly ought to appeal to the alumni and all others who may be interested in the welfare and growth of the College. It needless to say that the space limits render it impossible to give detailed accounts of each line of work in every issue; but it is hoped in time to reach them all. To do this the co-operation of those in charge is earnestly requested. The entire project is, in fact, more or less of an experiment; and the continuance or discontinuance of the column will depend in great measure upon the success or failure which it may attain.

THE SHORT WINTER COURSES.

During the winter term, more or less interest attaches itself to the short winter courses offered by the College. In recent years the attendance has not been what it should, and the usefulness of the courses has been seriously hampered thereby. This year, however, the courses received better and more general advertising than ever before and the results are correspondingly gratifying. Thirty-three men have been enrolled, besides several men from the four-year's course who are taking a portion of the work.

The most popular of these courses appears as usual to be that of dairy farming. Three divisions of ten men each have been formed, besides the division from the Senior class in Agriculture which has work on Saturday mornings. In the dairy school, Prof. Cooley continues to have charge of the work in testing. Mr. Trow, of last year's class is at the head of the separator division and Mr. Barnes of Iowa State college is instructor in butter making. Considerable new apparatus has been secured in both the separator and churning room and the work is progressing as well as could be expected.

Twenty-seven men are taking Horticulture, fifteen Entomology, six Chemistry, three Zoölogy and two Veterinary. The short course men are better organized than ever before. A debating-club and a basketball team have been formed, and other symptoms of an unheard-of activity are manifest.

EDITOR OF AGGIE LIFE.

(Communicated.)

With your permission, I would like to express the feelings of probably several men about college respecting a matter which is becoming more and more aggravating. I refer to the removal of periodicals from the Reading Room by those who have no authority to do so.

At the beginning of the college year, an auction of the periodicals of the Reading Room was held. It is possible that some men bid off such publications solely for the benefit of the organization. Others including myself, purchased them also for the sake of securing them after they had served the college public. Certain rules are laid down as I understand, limiting and controlling the rights and subscribers to the Reading Room. This set of rules does not, I believe, allow any member to appropriate any publication on file simply on the ground that it suits him to do so or because he needs its help in writing an essay. When the new magazine or newspaper appears, the old one is no longer the property of the Reading Room, much less of promiscuous subscribers. It belongs to the man who bought and paid for it in open competition. No man who cares for the reputation of the College or who is a believer in fair play will lower himself by confiscating the property or by using the privileges of others for his own selfish ends.

Probably there is no redress for those who suffer from these petty pilferings, but college opinion and censure should be so strongly and openly shown toward such action that it will not be politic for any person to commit them. It does not need a great amount of foresight to see that eventually these matters, if merely smiled at, will react to the detriment of the entire student body.

370 of the 472 colleges in this country have an enrollment of less than 150 students.

LIBRARY NOTES.

Eben Holden, by Irving Bacheller. This is an interesting story much after the same type as "David Harum," although I think it a little ahead of that book. It is the story of a boy who was taken by an old man from his home in Vermont, to escape the poorhouse, and carried into one of the pleasant valleys of western New York. A well-to-do family took pity on the pair and gave them a home making them members of the family. The boy is the hero of the story but the old man takes a very important position in the carrying out of the plot; his conversation and remarks are always amusing and instructive and what he says is invariably to the point.

Master Christian, by Marie Corelli. By many authorities this book is considered to be the strongest of Marie Corelli's productions, and perhaps it merits such praise but to a great many it would not be a congenial book. In the first place the opening chapters are rather tedious which would discourage the average reader at the outset, but who ever has patience with the author will think himself well repaid for his efforts before the conclusion of the story is reached. The plot is good and it is well carried out; the sentences are well formed and the style is generally clear.

The number of town and city histories is continually increasing. Those of Dorchester and Hubbardston have lately been added.

The following are scientific works:

The Second Law of Thermodynamics, Memoirs by Carnot, Clausius and Thompson, translated and edited by W. F. Magie. Ph. D., Professor of Physics in Princeton university. After the invention of the steam engine in its present form Carnot examined the relations between heat and the work done by heat and established the condition upon which the economical working of all heat-engines depends. Later his theories were taken up and more fully developed and carried out by both Clausius and Thompson, who published their results at the time. The science of Thermodynamics founded by these three men has led to the most important developments in all departments of physical science.

The Social Law of Service, by Richard T. Ely, Ph. D., LL. D., professor of Political Economy in the University of Wisconsin. The subject discussed is a

very important one and as the author says, "Deals with topics belonging to that borderland in which theology, ethics and economics meet. It is in this borderland that the problems of life present themselves to us."

Prismatic and Diffraction Spectra, Memoirs by Joseph Von Franenhofer, translated and edited by J. S. Ames, Ph. D., professor of Physics in Johns Hopkins university. The spectrum of the sun was first observed in 1666 by Newton. In 1814 Franenhofer, working independently, rediscovered the lines in the solar spectrum, which had been first observed by Wollaston in 1802, and they now bear his name. This volume is made up of the papers in which he describes his work. Franenhofer accomplished a great deal along this line of investigation and the great merit of his work as some one has told us is "the systematic, logical method by which he proceeds from investigation to investigation." All modern work in spectroscopy is based upon that of Franenhofer.

Alumni.

If it happens that some of the items in this column are unduly late in coming to print we humbly beg the indulgence of our alumni and most sincerely hope that with the help of the alumni in sending in their items, and with the consent of the publishers, this undue delay will not occur again.

'78.—Charles S. Howe has prepared a paper on the subject, "The Case Almuqantar" which appeared in the *Astronomical Journal* of December 29th, 1900.

'82.—W. H. Thurston, who went to the Klondike in search of gold died of pneumonia at Cape Nome last August.

'88.—W. M. Shepardson, of Middlebury, Conn., spent a few days in town recently.

'89.—R. P. Sellw, General sale agent for the Marsden Company. This company makes the Corn-Armor plates. Address 850 Drexel Building, Phila.

'92.—E. T. Clark, superintendent for J. Montgomery, Southborough.

'92.—J. L. Field, No. 3017 Prairie Ave., Chicago, Ill.

'92.—Wm. Fletcher, Chelmsford, Mass.

'92.—I. G. Stockbridge, Harrison, N. Y.

'92.—G. B. Willard, Waltham, Mass.

'92.—H. C. West, Waltham, Mass.

Ex-'93.—W. H. Ranney married to Miss Susie Billings, January 1, 1901.

'93.—Dr. E. H. Lehnert of Clinton was in town recently.

'94.—Halley M. Fowler, railway mail clerk between Boston and New York, recently spent a few days in town.

'94.—J. H. Putnam spent a few days in town recently visiting friends.

CLASS OF '95.

Wright A. Root*, Milk Dealer, 3 Brewster Court, Northampton, Mass.

Arthur B. Smith, Book-keeper with Wilson Bros., Wholesale Men's Furnishings, Chicago, Ill. Address, 544 Winnemac Ave., Ravenswood, Chicago.

Clarence L. Stevens*, Farmer, Sheffield, Mass.

Maurice J. Sullivan**, Farm Superintendent Littleton, N. H.

Fred C. Tobey, Teacher Physics and Chemistry, Mt. Pleasant Academy, Sing Sing, N. Y.

Stephen P. Toole*, Amherst, Mass.

Franklin L. Warren, Physician, King's Co. Hospital, Brooklyn, N. Y.

Edward A. White, Asst. Horticulturist, State College of Agriculture and Mechanics of Texas, College Station, Texas.

Henry A. Ballou*, Asst. Prof. Botany and Forestry and Com. Cadets, Connecticut Agricultural College, Storrs, Conn.

Waldo L. Bemis, with Prouty Boot & Shoe Co., Spencer, Mass.

Geo. A. Billings*, Instructor in Natural Science, Baron de Hirsch, Agricultural and Industrial School, Woodbine, N. J.

William C. Brown, Salesman, wall paper and interior decorations, 51 Cornhill Boston. Address, Peabody, Mass.

Albert F. Burgess, Asst. Inspector Nurseries and Orchards, Ohio Agricultural Expt. Sta., Wooster, Ohio.

Harry E. Clark, Dairyman, Bisco Farm, Middlebury, Conn.

Edile H. Clark, Brookfield, Mass.

Robert A. Cooley*, Prof. Zoölogy and Entomology, Montana State College, Bozeman, Mont.

Chas. W. Crehore, Farmer and Dairyman, Chicopee, Mass.

Chas. M. Dickinson*, Seedsman and Florist, 76-78 Wabash Ave., Chicago, Ill.

Herbert S. Fairbanks, Tutor. Hanover, Germany.

Harold L. Frost, Entomologist and dealer in Entomologists' Supplies, Arlington, Mass.

Thomas P. Foley, Teacher Mathematics and Physics, St. Austin's School, West New Brighton, N. Y.

Herbert D. Hemenway, Director and Instructor in Horticulture, Handicraft Schools of Hartford, Conn.

Robert S. Jones, Asst. Engineer, Metropolitan Water Board. Address, 3 Cambridge Terrace, Allston, Mass.

Shiro Kuroda, Utsubo Kitadori, Osako, Japan.

Clarence B. Lane, Asst. in Dairy Husbandry, N. J. Expt. Sta., New Brunswick, N. J.

Henry W. Lewis*, Park Dept., Office of City Engineer, Havana, Cuba.

Jasper Marsh, with Marsh Bros., Real Estate, Insurance and General Brokers, Danvers, Mass.

Walter L. Morse, Engineering Dept., N. Y. N. H. & H. R. R. Address, Middleboro, Mass.

Daniel C. Potter*, Landscape and Sanitary Engineer, Farmington, Conn.

*Married.

**Won class cup.

'96.—Horace Burrington is doing special work in agriculture under Professor Brooks at the Hatch Experiment Station.

'96.—Frank L. Clapp, care Metropolitan Water Board, 1 Ashburton Place, Boston.

'96.—Asa S. Kinney of South Hadley spent a short time in town recently, inspecting the apparatus in the Botanical Laboratory.

'96.—B. K. Jones has resigned his position in the Utah Experiment Station to accept a position as New England agent for the American Milling Co. of Chicago, Ill.

'96.—A. B. Cook has become the fond possessor of a son.

Ex-'96.—H. W. Rawson was married on Jan. 14,

to Miss Martha Griffin of Annisquam, Mass., at 6 o'clock P. M. by the bride's uncle of New York. After a three weeks' trip to the Bermudas, they will occupy a newly-fitted house on Broadway, Arlington, Mass. Mr. Rawson is now a member of the firm of W. W. Rawson & Co., Boston Seedsmen.

'97.—Geo. D. Leavens, of Grafton, is the happy possessor of a daughter.

'97.—H. F. Armstrong spent a week in town recently.

'98.—S. W. Wiley is collecting Paris green for the Hatch Experiment Station in the vicinity of Worcester and Boston.

'98.—W. S. Fisher was in town recently.

Henry B. Read*, Farmer and Fruit Grower, Westford, Mass.

'99.—W. H. Armstrong is in charge of the industrial training in San Juan, Porto Rico. Address. Care of Insular Board of Education, San Juan, Porto Rico.

'99.—M. H. Pingree of the Pennsylvania Experiment Station, spent the Christmas vacation in Amherst.

'99.—C. M. Walker has been appointed assistant in the office of the State Entomologist at Albany, New York, and will assist in the preparation of the State's Entomological exhibit at the Pan-American Exposition at Buffalo.

Ex-'99.—E. H. Sharpe is now in Connecticut employed in boring artesian wells.

'00.—F. G. Stanley of the Harvard Medical School is playing a leading part in the Harvard College banjo club.

TO WHOM IT MAY CONCERN.

AMHERST, MASS., FEBRUARY 1, 1901.

The '02 Index is at last published; late, but all the better for being late. Don't fail to procure a copy, all you who are interested in "Old Aggie." \$1.25 insures the delivery, to any address, of a Year Book that every Alumnus of M. A. C. would be glad to possess.

R. W. MORSE, Business Manager.

Tufts is to establish a school of political and legal science, for the study of statesmanship and diplomacy.

Intercollegiate.

The catalogue of Boston university shows a total registration of 1346 divided as follows: College of Liberal Arts, 495; College of Law, 343; College of Agriculture, 165; College of Theology, 151, and College of Arts and Sciences, 110.

The National Board of Education reports that one out of every forty college graduates now living has attained recognized distinction of some sort in the country: and that but one in every ten thousand, not receiving the benefits of such higher education, has attained similar success.

The projected movement to include a parade of students from the American colleges in the inaugural exercises of next March, has resulted in more or less of a fiasco. Practically every reputable college has declined to participate, on the ground that it would be a needless diversion from the regular work. The scheme will undoubtedly be abandoned.

Intense interest has centered of late in the investigations of hazing at West Point. Many instances of harsh and cruel treatment were given, and the testimony brought out numerous facts which proved the existence of a spirit, exemplified by the so-called "code of honor," which is entirely foreign to the non-military colleges. The recommendations of the investigating committees are eagerly awaited. There is some chance that the Congressional investigation will be extended to the U. S. Naval academy as well, since certain stories in circulation aver that a state of affairs exists there quite as bad as that at West Point.

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Editorials.

It is generally conceded that the Junior Prom. was a brilliant success. To say that a mid-winter event of this kind is needed as much as it is enjoyed may be a comparison of two dissimilar things, yet it will serve as a forcible though ungrammatical way of placing a true value on "the necessity of an indispensable thing;" for certainly nothing can serve so well in estimating that value as the pleasure and enjoyment which are derived from this social event.

WE take the liberty of publishing in another column a communication to which we wish to call the attention of our readers, as setting forth some suggestive ideas regarding agricultural education as it is carried on in Germany. Whether or no such a plan, as is suggested in the article referred to, would be feasible here in Massachusetts would have to be determined by experiment. Perhaps the idea is not new and

possibly it has been fully discussed; we are sure, however, that the article will prove interesting reading to many.

A good deal of interest has been manifested in the fate of the bill now before the legislature, calling for an appropriation for repairs and for making additions to some of the departments. The portion of the bill relating to repairs and additions was redrafted and presented to the committee on ways and means. This committee has recommended it to the house by which it was passed to be engrossed last week. It is now before the senate. It was thought best by those in charge to wait another year before asking for an appropriation for a new boarding-house. Next year, if everything goes well, an appropriation will be asked for. We think there need be no apprehension that a new boarding-house will not be considered. If the visit of the members of the legislative committee who visited the College on a tour of inspection January last does not bear good fruit then the College

might as well give up the ghost. The delay is simply one of expediency; the College must have a building which shall be creditable not only to itself but also to the State, and when a new boarding-house is built we believe that it will be a structure of which we shall nowise have occasion to be ashamed.

LITERATURE, art, poetry, travel, science, questions of political interest, and an hundred and one topics of importance and interest to the general public and to the student are being reviewed every month by eminent and distinguished men in our current magazines. The articles which appear from time to time on these varied subjects in our current periodicals have more than a momentary interest; they have a distinct reference value, one which is more and more being recognized and appreciated. In the investigation of almost every subject which one can imagine the student finds this periodical literature a treasure-house of information by means of which he can generally get a very comprehensive view of the subject in hand. But the value of the source of this information is in proportion to the readiness and ease with which it may be drawn upon. The student must make requisition upon it: he will be behind the times if he ignores it and when he is seeing information he usually can ill afford to spend the time necessary to wade through such a mass of literature as we now have upon the shelves of our libraries with only a possibility of his meeting with what he seeks. A thorough comprehensive index meets the requirement of the student; it furnishes him with a ready means of access to what he must use. We believe the addition of a Poole's Index will greatly increase the efficiency of our library. The general usefulness which such an index will have seems to us to be recommendation enough.

Stories.

A CHEMICAL EXPERIMENT.

A young man was sitting in what was evidently his living and sleeping room combined; his chair was tipped back and his feet were perched on the table. He was deeply engrossed in a book, which he held in his hand, a common briar pipe took up some of his attention, as he occasionally put it between his lips and

then blew a cloud of smoke over the room. As he sat he heard somebody tumbling and stumbling up the stairway as though in a fearful hurry. On reaching the top, the unknown approached the door leading into the room of the smoker, and without ceremony burst into the room, and, all breathless, shouted in an excited voice:

"Jack, old man, I have solved it at last."

Good, old man! Glad to hear it; you certainly deserve success for the work you have put on it. Sit down and tell me about it."

A few words of explanation will be of interest here. John Holden and his friend Fred Carter, were students in one of the large colleges; both had passed their undergraduate course together, and are now working for higher degrees as post-graduates. They had taken up the same studies; but Fred was particularly interested in chemistry and had been working for months trying to solve a chemical problem, that the head professor had set him at work on. Many others in former years, had been given the same knot to untangle; but had turned and twisted the snarl in vain. Now Fred had accidentally hit upon the solution of it. The result of his work was of great interest to the world, and was of enormous commercial value.

After Fred had recovered his breath and sat down, he began to recite the particulars that led up to the discovery. His friend listened with rapt attention, as he went over the equations that had led up to it, the details of which are of no interest to the reader.

Holden finally said, "Well, Fred, the next thing you must do is to have it patented. You are the one who solved the problem, and you should reap the benefits. This is one of the greatest discoveries of the century, and means that you are a wealthy man. Poverty with all its hardships is a thing of the past for you."

At the end of this speech Fred merely said, "Yes, that is so, Jack." and then sat quietly thinking for several minutes. Suddenly he jumped up and said, "I must go and report to Dr. Shuman," and then he went out.

He returned a few hours later and found his friend still deep in his book. Holden looked up as Fred entered. "Well, how did the Doctor take it?" he asked.

"He was greatly surprised at first," said Fred, "but more than delighted with my success. We talked it

all over, and I explained it to him, as he wanted to know the most minute particulars."

"As I said before, Fred, you had better get it patented right away, you can't tell what may happen."

After Fred had explained the discovery he had made to Dr. Shuman, and gone, the Doctor sat thinking for a long time. Here was in his grasp the means to attain what had been his life's dream. Not only unlimited wealth; but the perpetuating of his name as one of the great men of the world—one of the dearest desires in the hearts of men.

Dr. Shuman was at heart a good man, but the temptation before him was too great. He knew it was one of the basest crimes imaginable to steal what rightly belonged to the young man; but he finally gave in to the tempter. That night he worked until all the rest of the world seemed asleep, and before daybreak he had prepared all the necessary papers to have the discovery credited to him, and the first mail in the morning carried them on to Washington where they were duly entered and recorded.

Fred deliberately proceeded to make out papers similar to the Doctor's, but was several days before he had everything completed. A few days after he had sent them what was his surprise when they were returned to him, with a note from the patent office saying that the rights to that discovery had been granted to another a few days before the receipt of his papers.

When he showed the letter to his friend, Holden, it was in great despair and disappointment. His friend looked surprised and said, "Who could have been before you. It seems impossible that two persons could have solved the same problem at the same time; but cheer up old man, it may come out all right yet."

Fred went about his studies for the next few days in a despairing uninteresting way. When he told Dr. Shuman of his disappointment, the Doctor sympathized with him; but did not say very much. Fred continued his studies and finally secured his degree. He accepted a position as a professor in another college; but the loss of the honor of his discovery and the disappointment had left their marks on him and he was always quiet and thoughtful. Strange to say the name of the person who had secured the patent never appeared. Whether the Doctor had regretted his act and was too

cowardly to undo it was never known. The benefits of the solution of the problem had been given to the world; but without the name of the discoverer.

A few years ago an article appeared in one of the scientific magazines giving an account of the tearing down of the old laboratory building in which our hero had worked. Stored away in a secret compartment in the walls were found a number of papers, which gave a full account of the discovery and a full confession by Dr. Shuman of the part he had played regarding it. Thus after many years the rightful discoverer and owner came into his rightful due. Although he never knew during his life of the honors heaped upon him in after years yet his name will live forever and stands to-day with those of the great men of the world.

HOW IT ENDED.

[Competitive.]

"Mr. Ross you may bring that note to the desk."

The speaker, a tall, rather dignified looking man, whose Prince Albert coat and gold-bowed spectacles might have betrayed his vocation, stood on his desk platform in the study-room of the Lewisville high school, and looked fiercely at a handsome looking boy of perhaps eighteen years of age, who occupied one of the back seats.

The latter, whose frank, open countenance would have usually isolated him from his companions, now showed dismay and chagrin in every feature. He moved uneasily in his seat and glanced nervously across the narrow aisle where sat a blushing young lady, a year or so his junior. On the corner of her desk lay the cause of all the trouble; a portion of a leaf torn from a note-book, folded so as to be as compact as possible and containing—"but that does not concern us."

"Mr. Ross I do not intend to speak again. You may bring here the paper you just placed on Miss Haskell's desk, or you may interview the school committee."

Arthur Ross knew what that meant. The Lewisville high school had for some time been a seat of lawlessness, and since the last teacher had been installed a number of the more unruly element had been expelled by the all-powerful committee. He knew full well that an interview with that august body

would mean the ending of his career in the high school. And how he wanted to remain! He would graduate in a few months, and for a long time he had cherished thoughts of a college education. It meant so much to him to stay in school.

But no, he would never give that slip of paper to the teacher, for it would be read aloud to the whole school and Bessie should never be subjected to such an humiliation by any act of his.

Now Bessie Haskell had been his playmate ever since he could remember. They lived near together, a half mile from the school which they had always attended and it was always Arthur's umbrella which protected her from the rain, and it was always Arthur who carried her lunch basket on the way to and from the school. They had entered the high school together, and as they grew older, it came about as a matter of course that they should attend parties together and should be seen in each others' company at other socials in the quiet little town. Their school-mates had long since ceased to make puns about them. And aside from an occasional titter from the girls as some new episode came about or a sly jest from the boys, which Arthur's sensitive nature quickly resented, nothing happened to mar the tranquillity of their friendship.

"Mr. Ross!" At that instant Arthur arose to his feet, a feeling, something deeper than gallantry came to him for the first time. He never realized before how much he cared for Bessie and how much he was willing to undergo for her sake. He would go. He would leave everything before she should be subjected to such a disgrace; but as he started for the door, Bessie, flushed and trembling, slipped down the aisle and placed upon the Principal's desk a folded and crumpled slip of paper.

"Well, a—Miss Haskell, I think it was not your fault, I saw Mr. Ross place this on your desk and you know it is against the rules to pass notes. I shall have to read it before the school." The principal cleared his throat and looked over his glasses to note the effect on our young friend. Evidently satisfied with the misery he was causing the latter, he slowly unfolded the fateful note and read, "We take in Algebra from page 69 to 72."

The Principal looked disappointed; evidently he had expected a more startling passage. Arthur Ross

sank into his seat with a very perplexed but much relieved expression of countenance. The Principal dismissed the matter in a rather crestfallen way and there the incident ended, except that it seemed to strengthen the friendship between the two whose only thought was of each other and how to foil the principal.

* * * *

In June the two classmates received their diplomas. That evening when Bessie opened the bouquet of roses which accompanied hers, a visiting-card dropped to the floor.

* * * *

Arthur Ross, M. D., sat in his cozy office reading the evening mail. A beautiful woman entered and sat down on the arm of his easy chair. "See what I just came across, dear, while looking over some old school books I had when I was a girl." She held out to him a slip of paper yellow, soiled with age and showing plainly the creases where it had been folded. And then he read the note which his little classmate had so deftly changed for a less guilty one which had been passed to her a minute before, one day long ago. It read, "Bessie, will you go to the party with me to-night?" and then in less bold letters, as if afraid of being seen, "You know I would rather go with you than with any other girl."

Then Dr. Ross's arm stole around the slender waist by his side, and he kissed the brave little Bessie of his school days.

W.

"HOOFS AND CLAWS."

The third, of the series of illustrated lectures of the Natural History Society, was delivered in the chapel, Friday evening, February 7, by Professor Lull. His subject was "Hoofs and Claws."

Before the lecture, Mr. Gordon spoke for a few minutes on the work of the society, outlining the program for the winter. He then introduced Professor Lull.

The speaker gave various phases of animal life of the American continent of the past and present. Sketching its succession and sequence from its appearance in the Early Eocene up to the present time, confining himself mainly to the remarkable discoveries made in the Western territories, where vast numbers of bones are buried in wide-spread lacustrine

beds. Illustrations of the Eocene mammals and their descendants of the present day were thrown on the screen, and the Professor pointed out and explained the connecting links existing between them. His subject had mostly to deal with the order, Ungulata, or hoofed animals, and according with the title of his lecture he traced the resemblances and developments of the various existing species by means of their hoofs and claws, as follows :

The group Ungulata is divided into two sub-groups : Those that are odd-toed, *Perisodactyl*, and those that are even-toed, *Artiodactyl*. The first includes such modern animals as the rhinoceros, tapir, and horse. The second, somewhat distinct, the *Bunodonts*, those with mammillated teeth, of which the hog and hippopotamus are types, and the *Selenodonts*, those with crescental plates of enamel in the teeth, of which the ruminants, like the deer, ox and camel are examples. The most characteristic animals of the lowest Eocene belong to the genus *Coryphodon*, which once abounded in America. These animals in their dentition approached the American tapirs, except they had great canines like the bears, while their feet resembled those of the elephant, and some of them attained the size of the ox. Another point in which it resembles some of its early Tertiary contemporaries is the small size of its brain, especially in those parts supposed to minister to intelligence and higher instincts. Animals thus slow in development of brain were probably slow, sluggish and ferocious, dependent on brute force for subsistence and defence.

In the Middle Eocene period the *Coryphodon* was replaced by the *Dinoceras* and allied forms. Some of the species equalled the elephant in size, but had shorter and stouter limbs, each supported on five toes, the most perfect possible sort of pedestal foot. They were heavily armed with immense canines on the upper jaws, and two or three pairs of horns. The Eocene families have no known successors, and in the Miocene age their place is taken by a different group, of which *Brontotherium* is the type. They are creatures of huge size, with a pair of horn-cores on the nose, and feet with four toes in front and three behind, resembling in form those of the rhinoceros. Different forms have been found in the Bad Lands of the West, proving that the rhinoceros were once native American animals. A picture of a huge skel-

eton of one was shown, and a comparison was made with the modern animals of same species in foreign countries.

A diminutive ungulata, *Eohippus*, of the stature of a dog was shown. It had four toes and a rudiment of a fifth in front, and three toes behind, with teeth resembling those of the horse, but simpler and shorter in the crown. In this creature it is supposed that we have a direct ancestor of the modern horse. Another ungulata, *Miohippus* continues this line, while *Protohippus* of the lower Pliocene is still more equine, and as large an ass, and corresponds with the European *Hipparion*, in having the middle toe of each foot alone long enough to reach the ground. In the upper Pliocene true horses appear with only a single toe and splint bones, instead of the others. Though the horse was unknown at the time of the discovery of this continent, several remains of species have been found, proving that the genus existed here up to a comparatively late period ; what led to its extinction is yet a mystery.

The three groups represented by the horse, rhinoceros and tapir constitute the whole of the *Perissodactyls*, and the two latter forms can be traced back to predecessors even more closely resembling them, than those supposed to be ancestors of the horse resemble that animal.

The *Artiodactyls* have gained in numbers and importance, in comparison with their odd-toed comrades. The typical *Artiodactyls* are those that cleave the hoof, and are of all others the most valuable to man. Primitive even-toed species appear with an approach to the crescent-shaped teeth of the modern deer and oxen. Some of the species are obviously forerunners of the modern deer and antelopes, although destitute of horns and antlers. The earliest deer have small and simple antlers, becoming larger and more elaborate in approaching the modern era.

Elephants, two or three species of which constitute in the modern world the sole representatives of an order, are a remnant of an ancient race, once vastly more numerous. They appear in Europe and Asia, where they were represented by three distinct genera, *Elephas*, *Mastodon* and *Dinotherium*. These elephantine animals were known in America in the Pleistocene period, and contemporaneous with early man. Although now altogether destitute of these animals,

several remains of species, both of *Elephas* and *Mastodon*, have been found in Siberia and the Arctic regions. Several specimens preserved in a frozen state were so protected by dense fur as to be able to endure extreme cold. A picture of a skeleton of a huge *Mastodon* was shown. The *Mastodon* died out before the *Mammoth* of the Arctic coast, of which many legends exist among the people of that region. Huge tusks are now found in large quantities along the Siberian coast.

The last picture was that of an orang-outang, and the professor spoke of its remarkable resemblance to man, and of man's probable descent from that species.

The lecture proved to be very instructive, and was delivered in Professor Lull's usual interesting way.

THE JUNIOR PROMENADE.

On Wednesday night occurred the chief social event of the winter. The night was a blustering one, exceedingly cold and unpleasant, but notwithstanding these drawbacks the gathering was a very pleasant and merry affair. About fifty couples were present and good cheer reigned throughout the evening.

The hall was very prettily decorated with military colors; large streamers festooning from an improvised beam overhead to the walls in various directions, flags gracefully hanging in those places to produce the best effect were set off by potted plants, evergreen, and flowers. The patronesses sat at the south end of the hall in a bower of evergreens and potted plants. The orchestra was placed on a platform at the north end of the hall under a huge flag. A large field gun pointed its grim muzzle shining with the light of an electric lamp placed within, from each corner of the platform toward the center of the floor. Back of the guns were two alcoves tastefully arranged with chairs, sofas, and rugs, for the comfort of the guests. Numerous designs made up of military equipments adorned the walls, the most notable being a circle of bayonets, set off with a drum bearing a large "M" in maroon, and lighted within. Around the gallery were many banners won by the College in athletic and military contests.

At eight o'clock the patronesses began to receive the guests and at quarter past eight Warner's Orchestra rendered the overture "Silver Bell" which was followed by several other selections. At quarter past nine

the dancing began with a waltz to the strains of Jansen's "My Lady Fair." Dancing followed till twelve o'clock when refreshments were served by caterer Wood. After a short intermission dancing was resumed and continued till three o'clock when to the tune of "Home Sweet Home" ended the most enjoyable event of the season.

The patronesses were: Mrs. Goodell, Mrs. Paige, Mrs. Ostrander, Mrs. Lull, Mrs. Babson, Mrs. Fernald, Mrs. Stone.

The committee of arrangements were: C. L. Rice, chairman, Dr. Paige, Prof. Hasbrouck, N. D. Whitman, J. H. Chickering, C. T. Leslie, H. A. Paul, L. Claflin, C. M. Kinney, V. A. Gates. Much praise is due the members of the committee especially Mr. Whitman whose efforts in trimming the hall many thanks are due.

Among the guests were: Miss Barry of Hadley, Miss Hall of North Amherst, Miss Roberts of East Hampton, Miss Logan of Boston, Miss Hinckley of Amherst, the Misses Towne of Ware, Miss Cora King of Sandusky, O., Miss Singleton of Florence, Mrs. Ovalle of Amherst, Miss Jennings of East Greenwich, Miss Roberts of North Amherst, Miss Field of Leverett, Miss Tucker of Monson, Dr. Stowell and wife of North Amherst, Miss Hobart of North Amherst, Miss Wiley of Amherst, Miss Sargent of Northampton, Miss Bloomer of New York City, Miss Harris of Boston, Miss Daniels of Brookline, Miss Morse of Clinton, Miss Smith of Worcester, Miss Hayes of Northampton, Miss Miller of Holyoke, Miss McDermott of Providence, Miss Monahan of South Framingham, Miss Bartlett of South Natick, Miss Adams of Amherst, Miss Agnes Goessmann of Amherst, Miss Walsh, Miss Sanborn, Miss Ellis of Newton, Miss Dickinson of North Amherst, Miss Fisher of Amherst, Mr. Carpenter and wife of Amherst, Mrs. Lindsay of Amherst, Miss Trott of Amherst, Miss Ruder of Northampton.

THE GEOLOGY OF THE CONNECTICUT VALLEY.

The third lecture under the auspices of the Natural History Society was given in the Chapel Friday evening, Feb. 15 by Prof. Emerson of Amherst College, who spoke very instructively on the "Geology of the Connecticut Valley." His lecture was illustrated by

the use of several charts and diagrams.

By the term Connecticut valley is meant not simply the area about the river itself but a considerable district in addition, extending as far north as Brattleboro and running about twenty miles each side of the river. In our latitude for instance it is bounded by the hills of Pelham and Belchertown on the east and Williamsburg on the west. The geological formation of this valley is far different from that of the surrounding country and is of far more interest to the student. At a time when ferns were the highest type of vegetation and lizards the highest animals, the region was an arm of the sea. This can be proved by the celebrated "bird-tracks" to be found in abundance on the ledge just below Mt. Tom Station, which must have been formed by the hardening of the plastic mud just after the sea-water had all evaporated. Further evidence may be seen at the old Sunderland ferry where rocks are often seen bearing the imprint of scales of salt-water fishes.

While under the salt water, sand was constantly being brought down and deposited by the Miller's, Deerfield and Mill rivers which flowed then much as at present. The result was that a stratum of sandstone was formed of varying depth. In most cases it is not very thick to-day, although at Northampton an artesian well was sunk 3700 feet through it without striking the original igneous rock.

The next stage was that of volcanic action, which set in near the present location of the Holyoke Range. At first there was merely a quiet flow of lava over the bottom of the gulf, but later on there were violent eruptions as at Pompeii. The final result was the formation of the Holyoke range.

The salt water gulf gradually gave place to a fresh-water lake with the river flowing through. An upheaval of the sandstone took place causing the formation of many "faults." These opened up wide crevasses and also caused some parts of the valley to rise higher than others. Thus we find Amherst considerably above the usual level of the valley.

We must not suppose that that valley was at the same level then as now, Amherst for instance now but about 300 feet above the sea level then probably stood nearly as high as Pelham or Williamsburg, that is about 1000 feet. But when the glaciers came they wore away the soft sandstone of the valley, leaving

untouched the harder granites of the hills. Sugar-loaf and Mt. Toby escaped the common demolition and remain as landmarks of the original level of the region. In Amherst the only remaining outcropping of the sandstone is to be found by the High School Building and also by the Central Vermont Railway Station.

When the glaciers had melted away the river again began to flow, but in some places it left its old bed and chose a new course, adapting itself to the crevasses formed by the "faults." This change of level produced the water privileges at Miller's Falls, Turner's Falls and Holyoke, together with very many others. Nor is the river's course permanent even now, for it is still wearing away the shore all along its course, especially at North Hadley and just below Northampton where the road has to be moved back every few years.

The Connecticut valley is one of the richest fields known for geological study. The lecture was therefore extremely valuable not only as a source of general information but also as a supplement to the regular geological course.

College Notes.

—Allen, 1903, is spending a few days at his home in Winthrop.

—Dr. Wellington is out again after a several weeks illness with grip.

—Friday, the 22nd, will be celebrated by omitting College exercises.

—C. L. Rice recently spent two or three days at his home in Pittsfield.

—Thompson, 1904, enjoyed a short visit from his parents and sister last week.

—John M. Dellea has been obliged to leave college for a few days on account of illness.

—Prof. and Mrs. Maynard spent several days last week visiting friends in Northampton.

—Dr. H. T. Fernald delivered a lecture in Harvard: Mass. Friday evening, February 15th.

—Mr. Canavan who has been dangerously ill with pneumonia for the past week is somewhat better.

—Blake, 1902, has had a serious relapse necessitating his mother being summoned to care for him

—Dr. H. T. Fernald attended a reunion of the Maine State College alumni held in Boston, February 8th

—Dr. C. A. Goessmann after a somewhat lengthy illness has again resumed his duties at the station and the college.

—The petition that College exercises for Thursday after the prom. to be held on Saturday was granted, thus causing the condition exams. to be put off one week.

—A number of portraits of eminent men whose scientific investigation has gained for them an enduring fame now hang on the walls of the zoölogical lecture room.

—Dr. H. T. Fernald will give an illustrated stereopticon lecture in the chapel Thursday evening, February 21, at 7-45 o'clock. His subject will be "How Animals See."

—Prof. Tyler of Amherst college gave an interesting talk before the College Y. M. C. A. on last Sunday. This was the day of prayer for colleges and was duly observed as such.

—Several voices from College will take part in the oratorio St. Paul, to be given in Amherst college shortly. The chorus consists of fifty selected voices from the town and colleges.

—That new boarding-house racket smacks more of the fairy tale than of "ox-tail." At any rate we are given one year in which to let our appetites increase (which is impossible.)

—On Monday evening Professor S. F. Howard gave an interesting talk before the members of the Chemical Club. His subject was Victor Meyer, a distinguished chemist whose portrait adorns the walls of the chemical lecture room.

—A most interesting and instructive lecture on the geology of the Connecticut Valley was given in the chapel on Friday night by Prof. Emerson of Amherst college. The lecture was illustrated by various charts and contrivances. A goodly number availed themselves of so valuable an opportunity to hear this well-known geologist and entertaining speaker.

—The Junior Prom. was a great success. The hall looked better than usual and with the exception of the temperature, everything was quite satisfac-

tory. Several new features were introduced in the decorations, among which were the two large arc lights and the 3 in. cannon. Our advantages in having a plant-house and a military department are fully realized on this night above all others of the year.

THE SALT MINES OF MANISTEE.

About one hundred and seventy-five miles across the lake from Chicago, in the northern part of the state of Michigan is the small city of Manistee, and a busier little city it would be difficult to find.

The Manistee river flows down from the north, through the best timber section of the state, widening into a small lake about a mile broad and two miles long, then converging into a narrow channel about a mile long, which flows into Lake Michigan. The city of Manistee is located on both sides of the river, between Lake Michigan and the small inland lake called East Lake.

In the summer time East Lake is about as full of logs as a lake can be, to furnish work for the numerous sawmills and shinglemills which surround the lake. The advantages of this location are apparent. The logs are driven down the river from the lumber camps into East Lake. Each separate company has a definite part of the lake penned off by log booms, so as soon as the logs begin to come into the lake they are assorted and floated into their respective booms, from which they are taken into the mills to be sawed into beams, planks, boards, and shingles. The lumberyards are on the docks of East Lake. The Lake "Freighters" are towed up the river to these docks where they take their cargoes of lumber and sail to any desired port on the Great Lakes.

Close by nearly every sawmill are two or three, and in some cases as many as five high towers, very similar to those seen the oil-regions of Pennsylvania. Some ten or twelve hundred feet below the surface of the earth is a mammoth bed of salt, and under each of these towers is a well and pump. The water pumped up from these wells contains the salt in solution. Evaporate the water and there remains good wholesome salt.

In connection with these sawmills and "saltblocks" is an excellent illustration of the conservation of energy. Steam is the power employed and sawdust is the fuel used. In the boiler-room of the larger

plants there are as many as twelve great boilers, in rows of six on either side. The sawdust is fed to the fires by automatic carriers and feeders. One fireman watches the steam gauges and regulates the draughts and feeders for the twelve boilers. The steam is carried to a powerful engine which turns all the machinery of the sawmill, pumps the salt water from the wells, besides turning the machinery in the cooper-shop which will be described later. The exhaust steam is used to evaporate the water from the salt.

In one of the most modern plants the salt water is pumped into two immense iron receptacles called "vacuum pans." These pans are egg-shaped the small end being down, and are fifty feet in height and thirty feet in diameter. A reducing engine produces a partial vacuum in the first pan, thereby considerably lowering the boiling temperature. The exhaust steam from the engine is carried in pipes through the first vacuum pan, and produces sufficient heat to boil the salt water.

The steam generated by the boiling brine in the first vacuum pan is carried in large pipes through the second pan, in which the atmospheric pressure is still more reduced to facilitate the boiling of the brine. As the water evaporates the salt settles to the bottom of the pans. The salt is carried up from the bottom of the pans by scoops on an endless chain. The salt is dripping wet as it comes out of the pans, and is piled up in enormous sheds to dry. Often these "blocks" of salt cover as much in area as a city block, and are twenty or twenty-five feet high. It is left in this condition till it gets dried, then it may be left there a good deal longer to bring a higher price. Meanwhile the salt becomes quite solid like a great white rock.

While the salt is settling we will have an opportunity to inspect another important part of the plant, the cooper-shop. Here are all the modern devices for making rough strong barrels, suitable for shipping the salt. There are saws for sawing the staves and saws for sawing the barrel heads.

The man who begins to "set up" the barrels has a large pile of staves close at hand. In front of him is a machine with a wire rope loop considerably larger than the circumference of a barrel. After dropping a steel barrel hoop on the floor beneath the loop he quickly stands the staves in a circle around the inside

of the hoop, then pulling a lever, the wire loop draws the staves tightly together near the top. He binds them together at the top with another steel hoop, then loosens the wire loop and rolls the partly finished barrel to the next department, where big iron rings are slipped over the ends of the barrel and pushed up very snug on the barrel by a kind of vice. These hold the barrels steady while the rimmer makes the grooves for the barrel heads to fit into. The bottom is put in the hoops nailed on, the big iron rings slipped off and the barrel is ready for business. The normal output of one of these cooper shops employing twelve or fifteen men is twenty-five hundred barrels per day.

The salt is packed in these barrels, weighed, and loaded on the boats and shipped to Chicago, where it is distributed to the trade.

It is interesting to note that this immense layer of salt was not discovered by accident, but by a scientific man, a geologist, who after making a careful study of that part of the country, concluded that there ought to be a large salt bed in that locality, so this commercial industry represents another triumph for science.

W. '98.

PUBLIC LECTURES.

Three lectures under the auspices of the Natural History Society have been given and have been very successful. All three were illustrated, Professor Wilson's by lantern and models, Professor Lull's by stereopticon alone, and Professor Emerson's by charts and models. The remaining lectures of the course will occur on the following dates:

Feb. 21st, "How Animals See," by Dr. H. T. Fernald.

March 1st, "The Evolution of North America," by Dr. Loomis of Amherst College.

March 8th, "The Survival of the Fittest," by Professor John M. Tyler of Amherst College.

March 15th, "Some Curious Relations between Plants and Animals," by Dr. Dimmock of Springfield.

THE FORENSIC CLUB.

Resolved: "That the annexation of Canada to the United States would be beneficial to all parties concerned."

The speakers of the evening were R. R. Raymouth and T. Casey on the affirmative side, and on the neg-

ative N. J. Hunting and J. H. Todd. Some of the points brought out by the negative speakers were that the United States has enough difficulties in the shape of Cuba and the Philippines and that she would do well to digest one meal before she eats another.

The judges, Leslie, Bowler and Cowden gave the debate to the negative speakers.

Mr. Rice acted as critic of the evening; his principal criticism was that the participants in the debate made statements and had no proof for them. He also spoke of levity among the judges and its effect upon the judgments reached.

BASKET-BALL.

At the beginning of the term a series of games were arranged between the classes and short course men. A number of these games have already been played with the following results:

Seniors vs. Sophomores, 11-6.

Seniors vs. Juniors, 2-10.

Seniors vs. Short Course Men, 10-8.

Juniors vs. Freshmen, 24-4.

Juniors vs. Short Course, 16-2.

Sophomores vs. Freshmen, 9-7.

Sophomores vs. Short Course, 10-10.

Freshmen vs. Seniors, 12-7.

Freshmen vs. Short Course, 10-7.

Last Saturday evening the Drill hall was the scene of two exciting games of basket-ball between the Juniors and Short Course, and Juniors and Freshmen. There was a fair attendance and a small admission fee was charged to defray the expense of a new ball.

The game opened between Seniors and Short Course men. The Short Course men showed a lack of practice both in passing and goal throwing. The Juniors played their usual steady game. Their passing was exceedingly good and they kept the ball near their opponents' goal. As a whole the game was clean and interesting. Summary:

JUNIORS.

Bodfish, c.

Cooley, r. b.

Belden, l. b.

McCobb, r. f.

Dellea, l. f.

S. C. M.

Hunt, c.

Chiles, r. f.

Richardson, l. f.

Smith, r. b.

Crouch, l. b.

Score, Juniors, 16; S. C. M., 2. Umpire, Rice. Referee, Halligan.

The game between the Seniors and Freshmen followed. The game was exciting from the start to the finish and those who were fortunate enough to witness it were well repaid for their time.

The Seniors were apt to be a little rough at times but in the excitement of the game this was overlooked. The Freshmen played a clean, fast game and surprised all by defeating the Seniors. The Freshmen showed quite an improvement in their passing and goal throwing. Summary:

SENIORS.

Rice, c.

Whitman, r. b.

Chickering, l. b.

Pierson, r. f.

Cooke, l. f.

FRESHMEN.

White, c.

Kelliher, l. f.

Pierce, r. f.

Bowler, r. b.

Quigley, l. b.

Score, Freshmen, 12; Seniors, 7. Referee, Halligan. McCobb.

DEPARTMENT NOTES.

THE EXPERIMENT STATION.

Bulletin 71 on Concentrated Feed-Stuffs and Condimental, Stock and Poultry Foods has just been issued by the Division of Foods and Feeding. Part 1 is chiefly devoted to a report of the analyses of the samples of feed-stuffs collected by the division agents all over the state. The summary of results shows rather less adulteration than formerly, though the unguaranteed samples of cottonseed meal, mixed feed and oat feed were in many cases badly adulterated. Farmers are advised to purchase only guaranteed brands. Gluten meals and feeds are strongly recommended as "among the cheapest and most desirable feed-stuffs in the market." The use of the oat-feeds is depreciated. Most of the samples "have not over one-half the feeding-value of corn meal. It is believed that farmers actually throw away a large amount of money on this class of feeds."

Part 2 takes up Condimental Stock and Poultry Foods in much the same way. The analyses of these foods show that they are composed chiefly of some cheap material like wheat bran, corn meal, charcoal or oyster shells. The food materials are worth in general about \$20 a ton; the average cost of these foods was from \$1.20 to \$3.60 a ton. Small amounts of medicinal compounds, notably common salt, ginger and pepper are also found. The verdict is that the materials can be obtained separately at far less

price. The use of these condition powders with well animals is discouraged as unnecessary and even detrimental. The claims of the manufacturers are shown to be in most cases ridiculous, and experiments are cited to show that any money spent for these powders is worse than thrown away.

The main portion of the bulletin is by Dr. Lindsey, assisted by E. B. Holland, P. H. Smith and J. W. Kellogg. There is also a supplementary article on the Utility of Condimental Foods and Condition Powders by Dr. J. B. Paige.

Another bulletin on "Green Manures" also gotten out by the Division of Foods and Feeding is now in press and will be ready in a short time.

At the Hatch barn, the usual digestion work is being carried on with sheep. An experiment is also under way to determine the effect of an excess of fatty food on the quality of butter. In this experiment, the cows in the test are receiving a considerable amount of pure cottonseed oil each day.

Besides the routine work in the Divisions of Fertilizers, the force is engaged in analyzing samples of Paris Green and other arsenical compounds which have collected in the state. A tremendous variation in value together with considerable adulteration is reported.

A new Becker balance, similar in style to those already in use has been recently added to the equipment of the Division of Foods and Feeding. Several new chemistries have also been added to the library.

THE CHEMICAL DEPARTMENT.

A course of lectures on Chemical Apparatus by G. F. Parmenter and Chemical Literature by Prof. Howard is provided for the student-assistants this term.

The Juniors have completed their course in Qualitative Analysis and begin Organic Chemistry this week. It is expected that several students from Amherst and Brown are also to take the course.

THE VETERINARY DEPARTMENT.

Several additions have been made to the museum and considerable new apparatus is expected in a short time.

Dr. Paige is devoting considerable time to the study of anthrax. He now has cultures growing in various media and under different extremes of temperature. It has been stated that the spores will

retain their vitality under the right conditions for so long a period as ten or even fifteen years. Cultures made by Dr. Paige in the summer of '91 however have so far failed to produce the disease.

COMMUNICATION.

EDITOR AGGIE LIFE:

A copy of your school magazine AGGIE LIFE brought to my attention, recalls that when gathering data for the establishment of the Lowell Textile School, I became very much interested in German provisions for instruction in agriculture as set forth in an article on technical and trade schools by Consul J. C. Monaghan, at Chemnitz, Saxony, published in the United States Consular report of August, 1894. While ample provision is made by Germans for institutional instruction in agriculture this is supplemented by traveling teachers, or lecturers, who periodically visit all sections of the country, observing methods, correcting errors, coming directly in contact with the farmer and local farmers' associations. These are not simply ambitious politicians who attend agricultural fair dinners and discourse on public topics, but working teachers thoroughly instructed to present intelligently the science and practical art of agriculture.

It seemed to me that there must be available a large body of trained graduates of your college who have since had practical experience in applying their education to agriculture, who could be drawn upon for this service and who would thus be of inestimable benefit to the agriculture of the state. Even now at farmers' institutes we hear it solemnly asserted that picking off the blossoms of the apple trees will permanently change the bearing year, that seeds planted in the dark of the moon will run to root and in its light to top, etc. You may deluge the farmer with agricultural reports and statistics and he will still keep on in the old way. What is wanted is some trained expert to visit his farm, observe his methods and induce him to try new and improved ones. I presume your people are thoroughly familiar with all foreign methods of agricultural education and possibly this feature of traveling teachers has been considered, but I do not recall any reference to it in state publications.

Very respectfully,

JAMES T. SMITH.

Alumni.

'83.—Charles H. Preston represents the town of Danvers in the legislature this year.

'89.—Franklin Ware Davis, 85 College Ave., Roslindale, Mass., Clerk of the Mass. Agr'l College Club of Massachusetts.

'95.—E. A. White has been elected assistant professor of Horticulture and Assistant Horticulturist in the Texas Agricultural and Mechanical college and Experiment station. Address, College Station, Texas.

'98.—W. S. Fisher is spending a few days in Amherst.

Intercollegiate.

With the basket-ball season nearly at an end the probable champion seems to be Dartmouth as for last year, that team having so far defeated all comers.

Special students at the University of Chicago will hereafter be required to attend chapel and other general college exercises, including physical culture. This action was made necessary by the discovery that practically all the regular students were being transferred to the list of special students in order to avoid these compulsory exercises.

The action of the two Harvard professors in accepting the chairs at Leland Stanford made vacant because of a personal controversy of their occupants with Mrs. Stanford, is exciting much adverse comment in educational circles. The general idea seems to be that they were altogether too hasty and accordingly gave an exhibition of bad taste.

An interesting lawsuit in Pennsylvania has just been decided. A student of Western Reserve University Law School was found guilty by the faculty of some misdemeanor and as a result not allowed to resume his studies at the beginning of the year. The student then brought suit against the college, on the ground that he had been illegally restrained from securing his degree. The case was hotly contested, but was finally decided in favor of the defendant.

The Sophomores of Arcadia university of Nova Scotia are in open rebellion against the faculty. At a recent public oratorical exhibition, certain Sopho-

mores let loose a flock of hens from the gallery above on the heads of the audience. One man was considered guilty and suspended for the remainder of the year. His classmates agreed to stand by him, and have now announced as their ultimatum that they will enter a neighboring college as a body, unless the decision of the faculty is reversed at once.

The Agricultural appropriation bill has passed the House and is now in the hands of the Senate. Considerable discussion was provoked by an amendment to the section relating to the Agricultural colleges, which withheld all appropriations from the Utah Agricultural college till it should be proved that both trustees and faculty were innocent of polygamy. A Utah Congressman denied the charges brought against the college and offered a counter-amendment that the funds of all agricultural colleges should be similarly withheld till their officials were proved guiltless of any crime or misdemeanor. Both amendments were then lost.

DRAFTING INSTRUMENTS,

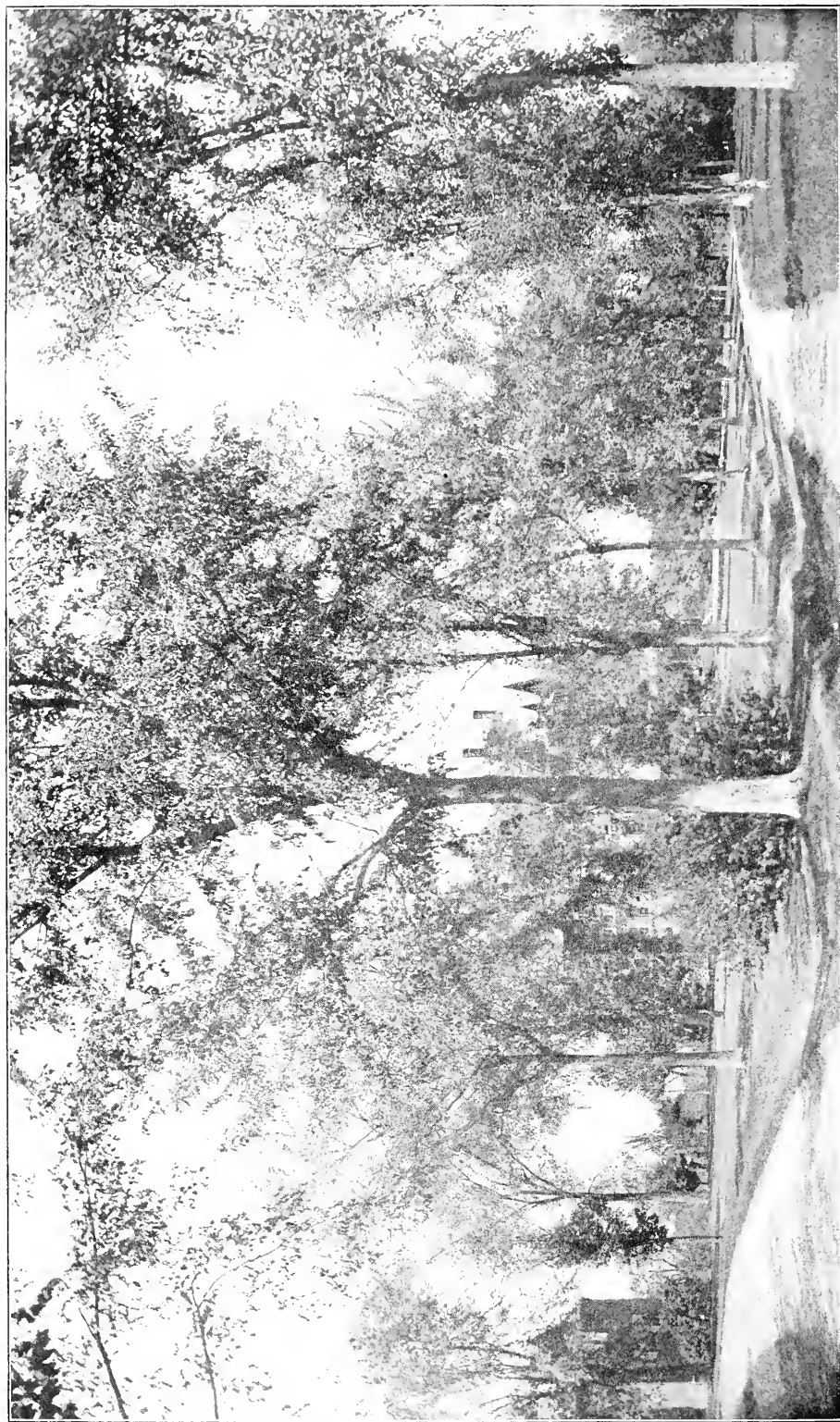
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ANNOUNCEMENT.

FOR the purpose of bringing before the attention of the people of this commonwealth the educational advantages of the Massachusetts Agricultural College, a special issue of the student paper was published during December last, with information concerning the college and its work presented in as complete a manner as means would allow. The success of that effort has led to the publication of a larger and more attractive edition. To the information herein given we ask the careful attention of all interested in procuring a scientific training, and a broad and liberal education.

THE AGRICULTURAL COLLEGE AND A YOUNG MAN'S OPPORTUNITY.

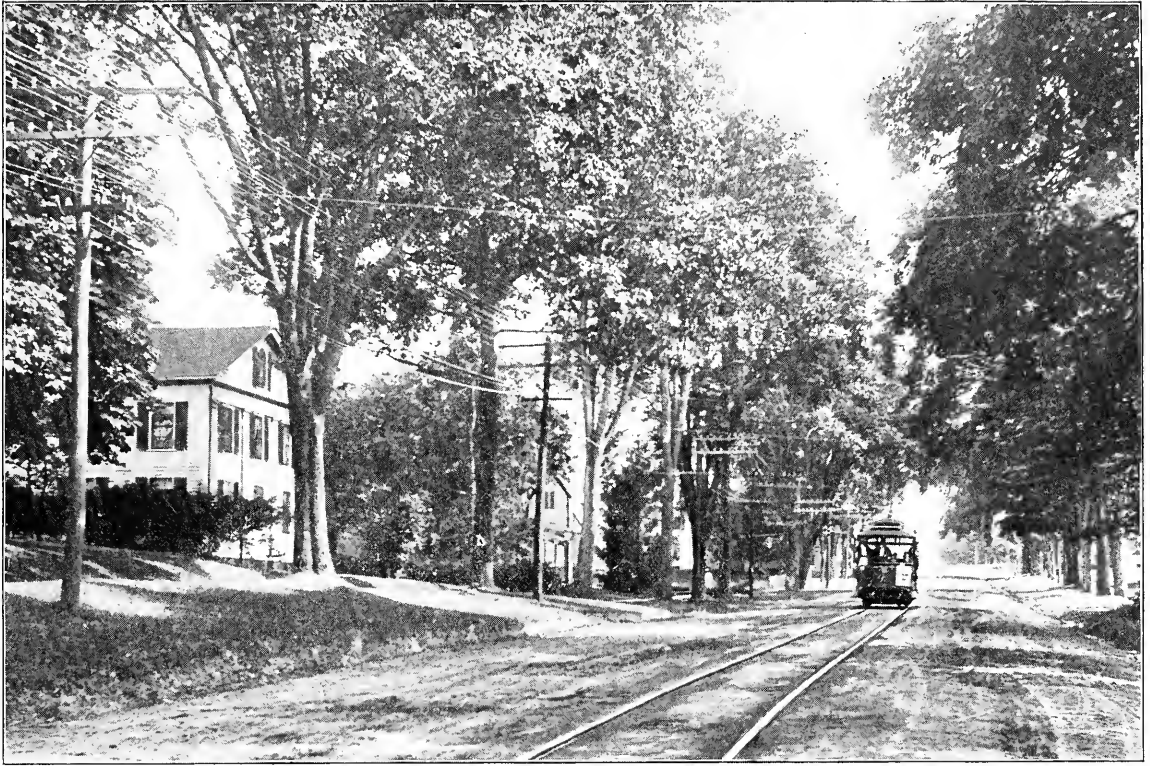
When man began to feel a need for something besides the simple necessities of life, and portions of our population began to congest into great manufacturing centres and marts of exchange, the evolution of agricultural processes began. Agricultural products began to be in great demand for manufacturing purposes, for food for the manufacturing portion of our population, and the simple and primitive methods of farming were insufficient for the new order of things. Agriculture grew into a complex industry, and the economic questions and problems demanding solution constantly grew in number.

The history of the evolution of agriculture in the United States is largely a repetition of the history of the growth and development of the country; for agriculture early furnished the principal articles of exchange and must be held the source of our mercantile and manufacturing life and prosperity, which in turn have led to such wonderful development in those things which minister to our convenience and comfort.

The occupation of tilling the soil must ever keep a place of paramount importance. It has a dignity older than the everlasting hills and one with which no title of ancient lineage can ever compare. But agriculture is an occupation which is fast assuming an importance aside from its ancient and honorable practice, an importance which has grown out of the increasing demand for improved methods of cultivation as well as for solutions of many great economic problems. Thus agriculture has grown to be a com-

prehensive science, and the word *agriculture* has a great deal broader signification than it had a quarter of a century ago. It is not too much to say that by the majority of people, especially those whose knowledge of the purpose and scope of agricultural education is only incidental, this wider signification is but little understood. Yet it must be obvious that no broad and comprehensive science can progress unless the problems that are constantly springing up are carefully investigated with a view to their solution. What must be the necessary result? Various departments of research will be established which will inevitably lead to specialization in each. It is in this way only that the most satisfactory progress can be made; that the most satisfactory results may be obtained. Thus we have many different departments of *agricultural* pursuits each of which offers opportunity for endless inquiry and investigation. The division may be conveniently made as follows: *Agriculture* proper, first and foremost, to which the other branches are subsidiary and essential; *horticulture*, a general term for the important occupations of market-gardening, fruit-culture, floriculture, landscape-gardening, forestry, etc.; *botany*, which comprises plant feeding, plant physiology, and vegetable pathology; *entomology*, which treats of insects and their economic importance; *zoölogy*, which furnishes a knowledge of animal life and structure and lays the foundation for veterinary training so important to the farmer; *agricultural chemistry*, of first importance to the farmer, teaching him to conserve manures so commonly wasted, and how properly to feed his stock for their health and his profit; *veterinary*, instructing in the care of farm animals and in the prevention of disease.

In all these departments there is not only specialization in research but great numbers of specialists are going out all over the country to engage in work along these separate lines. Large numbers of men are graduated each year for work in forestry. Landscape gardening is now an important profession. Chemists and entomologists are filling highly remunerative positions every year. Not only is there a need of and a demand for more veterinary training in the education of every farmer but there is a growing importance in veterinary medicine as a profession. In botany great progress is being made in the study of plant diseases and their remedies. Gen-



FROM TOWN TO COLLEGE

eral agricultural training in the management of farm affairs is recognised as an absolute necessity to successful farming; and market-gardeners, fruit-growers, and greenhouse owners are seeking to obtain the best possible training for their important work.

Was not his a far-sighted vision which could penetrate the obscurity of the future and provide for these important agricultural interests of to-day? To the late Senator Justin A. Morrill of Vermont belongs the honor of founding the agricultural colleges of this great country and of raising a bulwark for our national strength and glory in every state of the Union. In 1864, in accordance with the provisions of the so-called Land-Grant Act of 1862, under the combined action of the state and federal governments, the Massachusetts Agricultural College was incorporated. In 1882, the Experiment Station was also established and located at Amherst on the grounds of the Agricultural College. The work of both these institutions is going on to-day, and both are enjoying a prosperity unprecedented in their history.

The Massachusetts Agricultural College offers a free education to the young men of the state. It gives a four years' course leading to the degree of Bachelor of Science, and a graduate course leading to the degrees of Master of Science and Doctor of Philosophy. The graduate course was established because the college had certain peculiar facilities and advantages which could be nowhere else obtained. The institution was forced to offer opportunity for graduate work in those departments wherein it is peculiarly strong. As a special school it became its prerogative to establish a graduate course in those subjects which could not be pursued to so good advantage anywhere else. The movement has met with favor, and men from other institutions are taking advantage of the opportunities for study in entomology, botany, chemistry, and agriculture offered by the state college. There is no reason why the department of graduate work will not grow to great importance as its advantages become more clearly and more widely apparent. Advanced work is also offered in

mathematics and physics. Careful attention is paid to English rhetorical composition and to literature throughout the four years' course. French and German are each required for one year and are elective in the senior year. Mathematics and chemistry are each required as are also the elementary and essential branches of agriculture and horticulture. In the study of the latter the student will be brought into contact with nature, and may learn to take pleasure in the study of the animal and plant life with which he meets. The needs of those who look forward to teaching are considered and met, while for those who desire a broad and liberal college education to fit for business and mercantile life a training of the best kind is offered in the study of subjects that are eminently practical and useful as well as broadening and upbuilding.

DEPARTMENT OF HORTICULTURE.

The horticultural interests of Massachusetts, when we consider the growing of fruits, vegetables and flowers, all the ornamental features of our homes, private estates and public grounds, are not less important than those of agriculture proper and call for most varied education and skill.

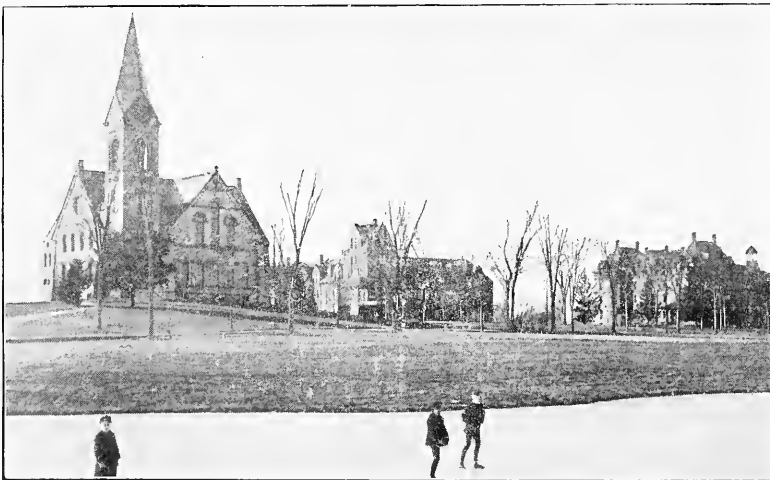
The aim of the horticultural department is to give to each and every student a fair knowledge of the business of horticulture in all its lines, i. e. fruit-culture, market-gardening, horticulture and landscape

gardening and including some of the fundamental principles of forestry as related to the methods of improving the conditions of the forests of Massachusetts or New England. This work is carried on during the sophomore and junior years, one term being given to each subject.

In the senior year the course in horticulture is intended to fit the student for the *practice* of fruit culture, market-gardening, floriculture, or landscape-gardening. It is urged that every student who elects horticulture, should, while making some one of these subjects a specialty become more or less familiar with all lines of this subject and possibly some lines of agriculture, as the conditions under which both agriculture and horticulture are carried on in New England vary greatly, and our farms possess so many varying conditions that no one can tell into what side-issues one engaged in dairying or in fruit growing may not be drawn.

It is important that those who have selected some line of horticulture for their life work become *skilled* in the practice of that work as soon as possible. To this end all the important hardy fruits and all market garden crops are grown, to a limited extent, in the field and under glass. Also on a commercial scale all out-door bedding or flowering plants, all plants for indoor decoration, trees, shrubs and plants for outside decoration of the home. This routine work can be seen and performed by the students whenever time permits. The student may, if he will, become considerably skilled in this routine work.

The equipment for this work consists of about 75 acres in the horticultural department proper, upon which are grown all the kinds of horticultural crops in condition to illustrate all stages of growth from the sowing of the seed to the full grown tree or plant, and in most cases in sufficient quantities to illustrate the market or commercial side of these lines of horticulture. For the study of landscape gardening, we have first of



THE CHAPEL



THE FOOT BALL TEAM

all an ideal location, being surrounded on all sides by the greatest wealth of natural beauty. The grounds have been laid out into a *farm-park*, where the farm, and garden portions are more or less intermingled. While ornamental they fully carry out the modern ideas of the *natural system* of landscape gardening, and illustrate the blending of beauty and utility that should surround all farm homes.

The equipment for teaching floriculture is one of the best connected with any agricultural college in the country, having sufficient space under glass to illustrate the business of growing the most important cut-flower plants, house and out-door decorative plants, etc. The green-houses are of many forms and include as many methods of construction and of heating and ventilating appliances as possible. For the study of landscape gardening the large collection of ornamental trees, shrubs and plants arranged in various

places about the grounds affords a good opportunity for the student to become familiar with the materials used in ornamental planting. A large number of the graduates are now successfully engaged in this line of work, with a demand for more men than are qualified for the positions offered. The demand is increasing for men trained to care for large private estates and public grounds as well as for men to engage in business in large horticultural establishments, the great requisites for success being a broad scientific education, skill and good business ability. The training at the Massachusetts Agricultural College in Chemistry, Botany, Physics, Entomology, English and the Modern Languages, together with good business judgment and industry will fit young men to be successful in any horticultural calling and to make fortunes for themselves and for the town and state influential and progressive citizens.

DEPARTMENT OF CHEMISTRY.

It is easy to believe that the country which has the best chemists will be the most prosperous and the most powerful. It will have, at the lowest cost, the best food, the best manufactured articles, the fewest wastes and unutilized forms of matter, the best guns, the strongest explosives, the most resistant armor. Its inhabitants will make the best use of their country's resources; they will be the most healthy, the most free from disease; they will oppose the least resistance to favorable evolution; they will be the most thrifty and the least dependent on other nations. Competition to-day between nations is essentially a competition in the science and application of Chemistry.

But the educational force of Chemistry is not expended in producing chemists alone. An eminent national writer has said. "The education of its *people* in Chemistry and the physical sciences is the most paying investment a country can make." Aside from training chemists and providing an important factor in all liberal courses of education, chemical study performs a special service for still other professions. Engineers, physicians and physiologists often find their success measured directly by the extent of their chemical training.

Accurate observation, logical thinking, systematic and constant industry, are absolute requisites for the successful chemical student. And these are the factors which make men of affairs, administrators of large interests and statesmen.

Courses adapted to the requirements mentioned are offered at this college. Instruction is given in general and organic Chemistry, all kinds of analysis, including that of minerals and preparations. The needs of students, fitting for positions in experiment stations and those taking courses in entomology, botany and other biological subjects, medicine, veterinary science, dairy work and agriculture, receive special attention.

A Chemical club meets at stated times, usually in the evening, for discussion in a social way, of current topics of interest. This is attended by the students, members of the faculty and the officers and workers of the experiment station. The meetings are frequently addressed by interesting speakers on live subjects from practical life. They are a source of enthusiasm highly valued by those who participate.

DEPARTMENT OF VETERINARY SCIENCE.

According to the last census the total value of domestic animals and their products in the United States amounts to nearly two and one-half billions of dollars distributed as follows:

Value of farm animals.	\$1,655,414,612
Value of dairy products,	454,900,000
Value of poultry and products,	343,000,000
Total,	<hr/> \$2,453,314,612
In Massachusetts the value of farm animals is placed at	\$19,521,586
Value of dairy products,	9,544,375
Value of poultry products,	553,970
Total.	<hr/> \$29,619,931

A conservative estimate gives an annual loss on this valuation of 6% due to the ravages of disease among live stock. By the intelligent application of the laws of animal hygiene a greater part of this loss is preventable.

The figures given above show the relation of Veterinary science to animal husbandry. With the rapid development of Veterinary medicine and bacteriology during the past twenty years we have added very greatly to our knowledge of the causes of contagious and other animal diseases.

A knowledge of the action and habits of the micro-organisms producing this or that disease enables us frequently to prevent its action upon our animals.

The principal aim of modern veterinary science is to prevent disease. This is accomplished by the more intelligent treatment of our animals; and also by the removal and destruction of the elements of contagion causing disease in them.

The prevention of animal diseases is largely in the hands of those having the immediate care of the stock. The relation of the veterinarian to the one in charge is principally that of an advisor. He can direct but is not in position in the ordinary every day treatment of the animals to carry out the directions. The prevention rather than the cure of disease should be the chief aim of all instruction in veterinary science given to agricultural students.

The course given in M. A. C. at present may be outlined as follows: (a) the hygiene of farm animals; (b) the anatomy and physiology of the bony, muscular, circulatory, respiratory, digestive and genital systems; (c) a study of the more common pathological

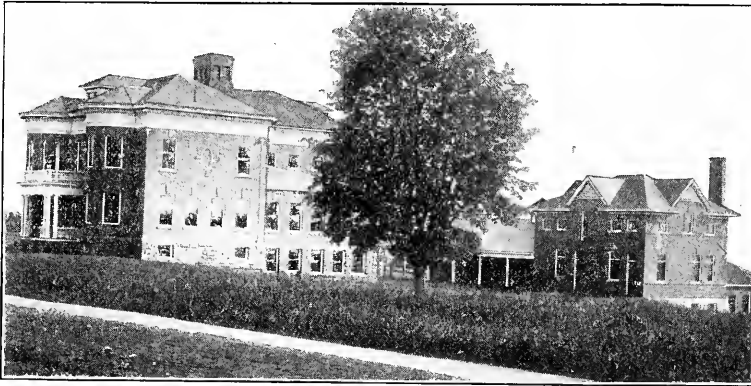


THE DRILL HALL

processes and the general causes, symptoms and effects of disease; (d) the consideration of the specific diseases of the different organs, particularly as regards causes, effects and prevention; (e) the nature, action and use of drugs; (f) a microscopical study of the disease producing micro-organisms and animal parasites.

While the course has been arranged principally to meet the requirements of the stock owner, the interests of the prospective *medical* and *veterinary* students have not been ignored.

With the new laboratory and hospital stable constructed after the most modern plans, well equipped with apparatus for the study of disease, providing the best of sanitary conditions, and for the separation of diseased animals and thorough disinfection, the de-



THE VETERINARY

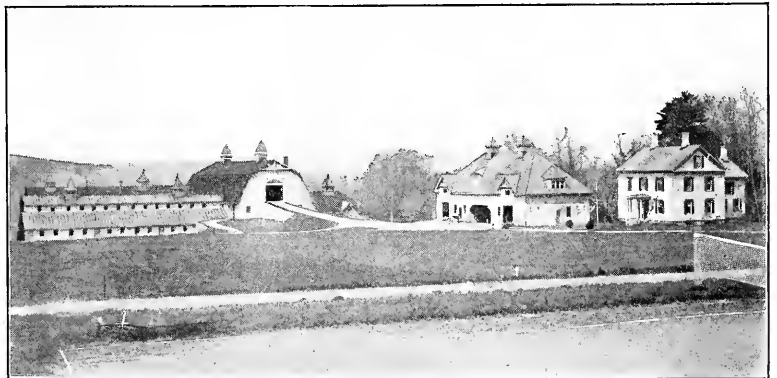
partment has unsurpassed facilities for giving instruction in this important branch of agricultural science.

DEPARTMENT OF ENTOMOLOGY.

Recognizing the importance of a knowledge of insects and the best methods of combating them, the Trustees of the Massachusetts Agricultural College have made Entomology an important part of the course of study at this institution.

During the summer term of the Junior year, six hours a week are devoted to the study of insects, particular attention being paid to the practical side of the subject. After a study of such parts of insects as are used in identifying the different species, the life histories of the more injurious forms are considered in detail.

The objects of the Junior course are to teach the student how to



THE BARNs

determine injurious insects as he finds them, to discover the point in the life history of each one where it can be most easily destroyed, and to apply the best method of treatment in each case.

Insects, however, comprise five-sixths of all animals, and in the time available during the Junior year little more than the general principles of the work can be given. For this reason Entomology is also an elective subject during the entire Senior year where it is of especial importance to students electing Botany, Horticulture or Agriculture, or those preparing for the study of medicine. During the Senior course more critical studies of the external and internal anatomy of insects are made; the literature of the subject is carefully studied; the chemical composition of the various poisons used, and the apparatus for applying them are investigated, and these with field work and the preparation of a thesis on some insect or group of insects constitute the course.

Even here the entomological work does not end. The loss each year in the United States by the ravages of insects has been estimated to amount to more than three hundred millions of dollars while the number of kinds of insects which cause this loss also reaches the millions. As different kinds of insects work in different ways, have different life histories and therefore require different treatments, the enormous magnitude of the subject has rendered necessary the education of expert entomologists who at college Experiment Stations as State Entomologists, Crop Experts, etc., may devote their entire time to the task of aiding the people of the country in controlling the insects attacking their crops and thus reducing their loss. Such experts are in demand, and in response to that demand the College has recently established a three years' graduate course consisting of a major and two minor subjects, leading to the degree of Doctor of Philosophy and fitting its graduates for expert work as entomologists. That this course supplies a genuine need is shown by the number of students already taking it, and by the calls for men thus prepared.

For such a course the College is unusually well equipped. A building erected especially for the purpose is provided with excellent laboratories, and apparatus such as microscopes, microtomes, reagents, glassware, photographic apparatus, etc., is supplied in abundance. Over ten thousand books and pamphlets

on the subject, including files of all the leading entomological magazines of the world are available for reference, to which a card catalogue of about 45,000 cards affords an easy method of reference. Rooms for chemical analysis, photography and for spraying apparatus, and a green house for studying affected plants, besides the large gardens, green houses and orchards belonging to the College, are all available for use by the student, who finds his facilities for work in this department unexcelled anywhere in the United States.

DEPARTMENT OF BOTANY.

Within a comparatively recent time botany has developed an economic side which has already become important. The enormous resources of the United States which form the basis of our industries and wealth, together with the inherent utilitarian sympathies which the American investigator possesses, demand work of this nature. The annual losses to agriculturists, horticulturists and floriculturists through the invasion of fungi, etc., represent millions of dollars, and the results of research and experimentation by economic botanists have already been the direct means of much saving to these industries. The amount of money saved, together with the superior products produced by brewers, butter makers, etc., through the introduction of pure cultures of plant organisms, and the adoption of rational hygienic principles based upon research, are worthy of notice. The study of the flora of our public water supplies, and the rôle that these organisms play, has brought about a more careful system of management and a resulting lower death rate from certain diseases.

In the development of the utilitarian aspect of botany our Agricultural Colleges and Experiment Stations stand pre-eminent. The enormous amount of investigation already accomplished in a single line—namely, in plant pathology,—and the important practical value of these researches, are alone worth the vast sum of money which it has cost the federal and state governments to establish and maintain these institutions. The study of plant diseases and methods of suppression have advanced so rapidly that, at the present time, plant pathology in America far excels that in any other country; and the numerous problems in plant pathology and physiology of an economic



MOUNT SUGAR LOAF

nature which still remain unsolved indicate that the practical results already brought out by patient research furnish only a suggestion of what may be expected in the future.

The object of the course in botany at this institution is to teach those subjects which have a bearing upon economic and scientific agriculture, and for this purpose economic types of plants and subjects for experimentation are selected in so far as they do not interfere with a logical and pedagogical sequence. There are seven terms of botany in the course, four of which are required during the freshmen and sophomore years, and three are elective in the senior year. In the required courses for freshmen and sophomores it is our aim to convey an elementary idea of the fundamental principles of morphology, anatomy, flower analysis, classification, and histology, together with the ideas of ecology and physiology. The courses in these subjects furnish a general training in botany, and also form the basis of agricultural and horticultural study. The courses are made as objective as possible, and to illustrate the various subjects accurate drawings are made of the specimens under consideration, thereby developing the powers of observation and technique. The senior elective courses are devoted to the study of plant pathology and physiology both of which are preceded by a brief general outline such as is essential before specialization. In plant pathology the student is given a hasty review of the cryptogams with particular reference to the various groups of fungi in order to become acquainted with their relationship, after which he confines himself to the study of those particular groups with which he is most concerned. For example, a student may devote two-thirds of the year to the study of diseases pertaining to the rose, carnation, violet, etc., and methods of controlling the same, or he may confine himself to those diseases peculiar to the orchard, fruit garden, etc. In this course special attention is given to the differences existing between normal and abnormal plants, and the susceptibility of the latter to disease is continuously emphasized, and the method of treatment pointed out.

The most recent literature contained in the Experiment Station and other special publications is freely consulted. The course in plant physiology is correlated with that in entomology and horticulture. The

course in practical plant physiology is largely experimental dealing especially with the functions and reaction of plants to external conditions. This course is correlated with agriculture and horticulture and plant pathology on the one hand, and chemistry and physics on the other. Either physiology or pathology in connection with veterinary or chemistry offers a suitable preparation for a professional course in veterinary or medicine. A finely equipped botanical laboratory fitted with experiment apparatus and with compound and dissecting microscopes, a laboratory for graduate students, a lecture room, a botanical and horticultural museum and herbarium, and the extensive conservatory of exotic plants belonging to the horticultural department offer especial advantages for studying physiological botany and the histology of plants according to the most progressive and advanced methods.

DEPARTMENT OF ZOOLOGY.

The zoölogical instruction aims to cover, in as comprehensive a manner as possible, a systematic and comparative view of the entire animal kingdom embracing both living and extinct forms, with the exception of the insects.

In accordance with the plan of passing from the known to the unknown; man himself is taken as the first type, and in the sophomore year, with Martin's "Advanced Human Body" as a guide, the student is led through a study of human anatomy, physiology, and hygiene. The study is illustrated by means of charts, manikins, models and such portions as are readily obtainable for comparison and demonstration. Occasional lectures serve to supplement the text-book. The aim is to teach the student to know, and to appreciate to some extent, the marvels of his own organization and to furnish a basis for further study. In the junior year the study of Zoölogy proper is taken up and the student becomes the investigator, for the principal work is done in the laboratory, the lectures serving only to supplement the knowledge acquired by observation.

The wealth of microscopic life abounding in pools and streams near Amherst, and the close proximity to marine and inland supply depots, renders it possible to have as complete a list of forms for study as the time allotted to the work allows.

An example of each principal group is dissected,

drawn, studied and compared with others of its class with a view to knowing the type and the variations caused by different habits and environment. Parallel with the anatomical will be the taxonomic or systematic work; that is, the study of the forms with their classification and arrangement which are exhibited in the very complete museum collection, as well as by lantern pictures of existing animals and restorations of extinct ones, and by the growing collection of living animals of various sorts.

Thus the student is brought to understand, by means of abundant illustration, the workings of those great laws which have governed the evolution of the various races; the influence of environment; the struggle for existence; the probable causes of the extinction of great groups of other days, the probable future of those existing now and the relations existing between man and the rest of the animal kingdom.

Next year advanced courses in Zoölogy will be offered giving the student a yet deeper insight into this most wonderful realm of nature.

DEPARTMENT OF AGRICULTURE.

It is the aim to make the time devoted to the study of the subjects taught under the name of "agriculture" in this college, as fruitful as may be in the development of mental power and the acquisition of a knowledge of the scientific principles on which the various farm operations depend. The course is not regarded as having industrial training alone for its object; neither, on the other hand, is it so planned as to give no help on the side of industrial training.

Technical training alone, or, applying the principles under consideration directly to agriculture, instruction in the best methods of plowing, planting, reaping, feeding, etc. would more appropriately be taught in a *farm school* than in a *college of agriculture*. That such training is uncalled for is not believed. There is among us much slovenly farm work which should be bettered; but improved methods of work can better be taught either in a school of practice or upon the private farm than in connection with a college course. President Hadley of Yale has recently well said: "There are two ways of making a man a better worker in his profession: by technical training, which teaches him in his school days the things which otherwise he would have to learn afterwards; and by scientific

training, which teaches him in those same school days things which he would otherwise not learn at all. The former aims to save the time of the student, the latter to increase his opportunities of ultimate development."

It is profoundly believed that the *agricultural* training in college should be directed chiefly to the attainment of the second of these objects.

While, however, this side of our work receives the greater emphasis, much help, it is believed, is given on the technical side as well, through the discussion and study of the principles upon which depends the accomplishment of the objects in view in the various farm operations.

With a knowledge of these principles or with a mind fitted by training to look for principles and always to work with these uppermost, one soon learns the "technique" of farm operations; can adapt oneself to the ever varying conditions of practical experience; and, best of all, may hopefully look for progress in methods. Not how to plow, how to drain, to irrigate, to manure; but why we do these things is it important for the college man to learn.

The training in agriculture now given here is, then, largely on its theoretical and scientific sides. It is as yet carried on chiefly by means of lectures and textbook study. At the same time the application of correct theory in practice is constantly and largely illustrated by reference to field, to the barns and stables, and to experiments in progress.

DEPARTMENT OF ENGLISH.

The aim of the English department in the Massachusetts Agricultural College is to train the students to a correct and effective use of the English language in the oral and written expression of thought; to secure some acquaintance with the masterpieces of American and English literature; to develop ability to present logically and forcibly, oral and written arguments or propositions assigned for debate. As means to these ends rhetoric, literature, argumentation and oratory are studied.

The course in rhetoric comprises a study of the choice of words, the theory of phraseology, special objects in style, the sentence, the paragraph, the whole composition in its plan, arrangement and development. This is followed by lectures on invention, in which the elements and underlying principles of literature are

discussed. The students are expected to give practical illustration of the principles taught in written exercises, themes and compositions that are required throughout the course.

In the study of American and English literature text-books on the history of these literatures are used, but these text-books are not allowed to take the place that belongs to the literatures themselves. The student approaches English literature through American literature. Having learned to appreciate and to enjoy the literature of his own country he anticipates with pleasure some familiarity with the wider field of the literature of England. Throughout the course in literature an attempt is made to know authors through their writings rather than through what others have written about their writings. As an important aid to an appreciation of literature the English language is studied in its origin, structure and development, while the principles of literary criticism are found in the masterpieces of standard authors.

Instruction in oratory is given through exercises in declamation, first before the instructor and then before the class. In the junior year at least three orations upon subjects assigned by the instructor or chosen by the student are written and delivered before the class.

A course in argumentation is a required exercise during the senior year. The principles of the subject are studied in text-books and in the work of eminent debaters, while the practical illustration and use of these principles are secured by written briefs and forensics, and by oral debate.

While the studies briefly outlined above are acknowledged by experienced educators to be of great value they will not necessarily produce "good writers" and "good speakers," nor will they always be crowned with a rich harvest of liberal culture. There can be no "good" writing without clear thinking and in our desire for effective expression of thought we must not lose sight of thought itself. It cannot have escaped the notice of those acquainted with college students that the thoughtful, earnest ones of their number are an unquestioned minority. For this condition of things the students are not wholly responsible. Too often the hour of recitation or lecture passes without any such quickening of the student's interest or attention as shall lead to thoughtful consideration of truths involved in the subject in hand or suggested by it.

Fortunate is the teacher of English who can improve the opportunity which is his to help his students to an intelligent appreciation of the treasures of thought and imagination that literature contains.

DEPARTMENT OF POLITICAL SCIENCE.

The department of Political Science includes both economics and civics. To the former two-thirds of the year is given and to the latter one-third.

I. The course in economics begins with the study of the facts, definitions, principles and laws which lie at the basis of the science. A text-book is used, supplemented by lectures and frequent examinations. The student is required to observe the facts of the business world; to classify them; to define, distinguish and describe them; to separate essential facts from the non-essential, and then to derive the general laws which govern the production, exchange, distribution and consumption of wealth.

A careful study is made of the economic history of England and America that the student may learn from the actual experience of the foremost nations how land, labor and capital have been used in different stages of society for the increase of individual and national wealth.

Opportunity is given to each student to select some question in which he is especially interested, in order that, under the direction of the instructor, he may investigate it thoroughly and give the results to the class by reading a paper and defending the same orally. The students are shown how to find and to use efficiently the best authorities and original sources of information. Each class chooses the special course of lectures it prefers, from the following: the tariff, monopolistic corporations, the economics of agriculture, banks and banking, the problems of the currency, labor and capital, socialism. Especial attention is given to the business relations of agriculture. One object is to interest the student in current economic questions, fit him to understand the discussion of them, and at length enable him to form an opinion so that he may wisely adjust himself and his possessions to the constant changes of the business world.

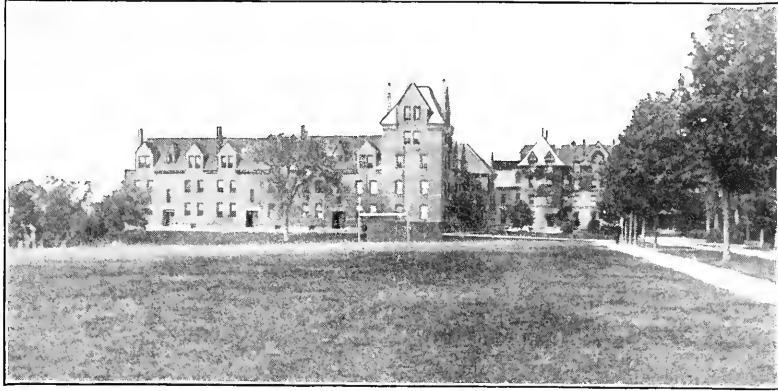
II. Civics is closely related to economics. The one depends upon the other. The text book used is "The State," by Woodrow Wilson. This is supplemented by lectures. Preparatory work is done, as

may be necessary, in the review of our political institutions. The nature of our government, federal, state and municipal, is explained and the relations of the three kinds of government set forth. The actual working of political parties is described. Then our government is compared and contrasted with the governments of England, France and Germany.

The history of our written and unwritten constitutions is studied. The origin and development of the federal constitution are discussed, as related to state constitutions and as connected with the constitution of England. Details are subordinated to principles. The philosophy of government is so taught that it interprets history, and enables one to comprehend methods of administration.

Five hours a week are given to the work. The object kept constantly in view is to make the good citizen and the successful man of business; the means employed is a thorough understanding, through observation and thought, of the environment constituted by the economic and political world.

The constant endeavor is to adapt wisely the courses to the needs of each class, so that each student shall see with his own eyes and hear with his own ears and think for himself and come to his own conclusions. The purpose is to make men of convictions who can rely upon their own judgment and work



SOUTH COLLEGE

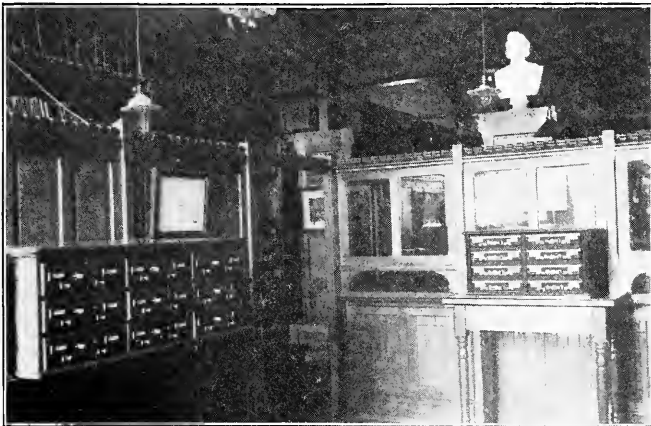
out for themselves the problems of life that confront them.

DEPARTMENT OF MATHEMATICS, PHYSICS AND ENGINEERING.

In a recent paper, under the caption, "Why Study Mathematics?" the author makes the following statement: "For genuine achievement the mind has need of more than the untrained coming and going of ideas. * * * Whatever of sympathy and instinctive tact and of other unreasoned processes the mind may need in facing actual life, it also needs as much skill as it can possibly acquire in consciously directed thinking; that is, in appreciating and utilizing clear conceptions; and, however much other branches of study may entertain and inform and develop, mathematics is of all studies the best fitted by its nature to train the mind in thinking clearly and straight to the point."

These sentiments voice the belief of the instructors of the Mathematical Department, and every subject handled, from the first term of the freshman year to the completion of the elective work, is presented with a view to reaching this much desired end.

Aside from the question of mental development, there are plainly evident the utilitarian ends of the subjects taught. The mathematics for the underclassmen are of direct value to the student who may adopt teaching as his profession, and it is intended to give as extensive a research as possible in the allotted time. They also form the necessary basis for



CORNER IN THE LIBRARY

the work of this department in the upper classes, and the embryo engineer or physicist realizes that thorough preparation in his first years is essential to success, when confronted by the more profound problems that the advanced work brings.

"A little knowledge is a dangerous thing," in these days when scientific research probes so deeply into the secrets of Nature. As a graduate student, if not earlier in his career, the man who would specialize learns how extended a general education is needed as a foundation for the superstructure he would rear.

The botanist working along advanced lines of vegetable pathology and physiology finds with each year an increasing need for exact knowledge of the principles underly the subjects of heat, light and electricity. In this fact he finds an answer to his undergraduate question—Of what value is Physics to me if I am to devote myself to Botany?

To the horticulturist, who combines with his knowledge of horticulture a practical education in the principles of engineering, is given an immense advantage, financially, over the man not so equipped. For landscape engineering is a comparatively new field and the horticulturist working along this line may find competition less severe.

Toward these ends the department is working, adding, when it is possible to the laboratory and field equipment so that although only an adjunct, the Mathematical Department may keep its place as a necessary factor in equipping the graduate of the Massachusetts Agricultural College for successful competition in the world "outside college walls."

DEPARTMENT OF MODERN LANGUAGES.

A scientist early learns his dependence upon the experience and thought of others. The scientific student has not gone far before he feels keenly—the more keenly if he does not possess it—the advantage of being able to draw freely from many and varied sources of scientific thought and information. Some of the greatest discoveries in modern science have been made by those who speak a different language from our own. The thorough and painstaking student who wishes to acquaint himself with the best thought of the many eminent French and German writers, or who wishes to keep abreast of the times in the periodical literature dealing with his specialty,

must acquire a knowledge of the French and German languages. It is because these subjects are not only useful but almost indispensable that they are required in our scientific schools and have so prominent a place in their curriculums. Their value has been tested and stands unquestioned.

The definite aim of instruction in French and German at the Massachusetts Agricultural College is to meet the requirements of the investigator, whether it be in science or literature. Accordingly, one year of each is required, and each is offered as an elective in the senior year.

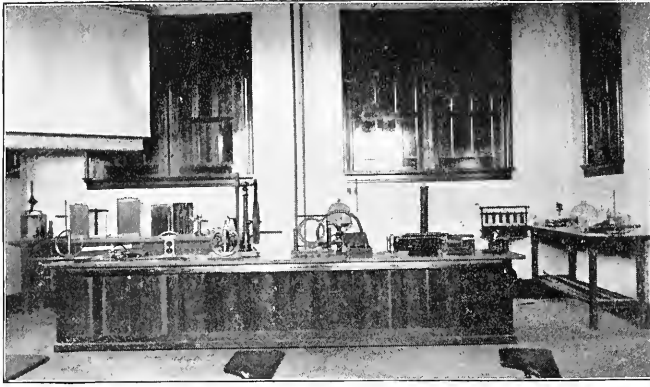
The undergraduate work in French is required in the freshman year. A knowledge of the elements of grammar, such as the fundamental principles of construction and an acquaintance with regular and irregular verbs and their conjugations, is insisted upon. Translation is begun early and is given especial attention so that the student may acquire a vocabulary as soon as possible. In the sophomore year the student takes up German. The plan of study is similar to that of French in the freshman year, especial attention being given to translation. While a knowledge of these two languages, as an auxiliary to scientific inquiry is held to be of first importance their value as studies for mental drill and discipline, and as helps to inquiry into French and German literature is not forgotten.

OBJECT OF MILITARY INSTRUCTION IN COLLEGES.

This is a subject only partially understood by many and not understood at all by some. By those who fully understand it, it is considered a wise precautionary measure on the part of the general government to have young men in college trained in the Elementary Science of War even if not so well instructed in those higher branches that fit one for the responsible duties of command. It is expected that in case of any military emergency, the graduates of these institutions would prove a valuable factor in our national defense and security. The value of such instruction was exemplified in the recent war with Spain. The Report of the Inspector General for 1898 says: "The presidents of 46 colleges, whose military departments numbered about 7,100 students before hostilities began, reported that 29 of their military students and



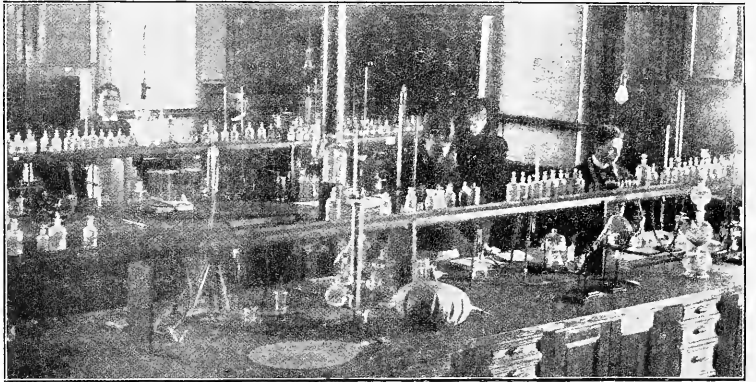
THE BATTALION



PHYSICAL LABORATORY

59 alumni had been commissioned in the Regular Army, and 157 students and 296 alumni in the Volunteer Army, a total of 541 officers, or enough for about 12 regiments; and that 1,034 students and ex-students had joined the forces as noncommissioned officers or privates."

Ability to handle the rifle and to use it effectively, discipline, and an unconquerable *esprit de corps* have brought our army to the high standard it maintains to-day. Training in military schools and colleges is supposed to furnish military training without service in the regular army. It has a good influence upon the physical, moral and social character of the student besides inculcating a military spirit, and the lesson of discipline, without which



CHEMICAL LABORATORY

tical solution upon the field of battle where the highest talent, courage and judgment are demanded. Wars have raged since the first dawn of civilization and seem likely to continue until the dawn of the millenium. Until that blessed time shall arrive military training will be necessary; after that "Swords will be beaten into plow-shares and spears into pruning hooks."

ADMISSION AND EXPENSES.

Candidates for admission to the *freshman class* must be sixteen years of age. They will be examined orally and in writing upon: English, general history, physiology, physical geography, algebra (through quadratics),



GEOLOGICAL LABORATORY



ENTOMOLOGICAL LABORATORY

plane geometry and civil government.

Candidates for *advanced standing* are examined as above and also in the studies gone over by the class to which they desire admission.

No examination is required for entrance to the *winter courses*.

DEGREES.

The degrees of Bachelor of Science, Master of Science and Doctor of Philosophy are granted on the completion of the respective required courses of study.

EXPENSES.

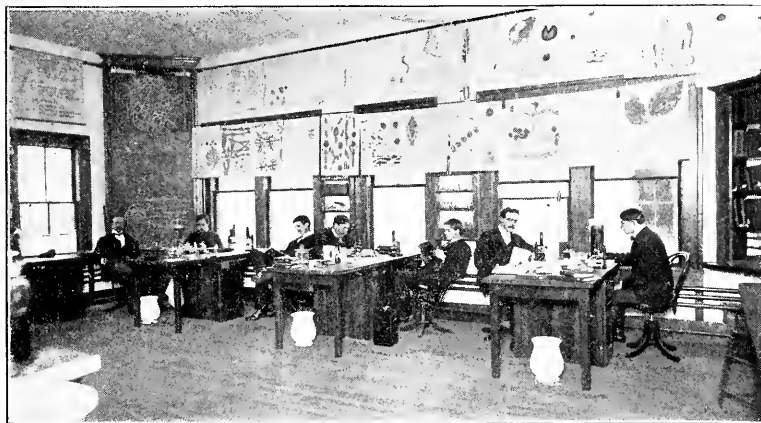
Tuition in advance (free to citizens of the United States.)

Fall term,	\$30.00	
Winter term,	25.00	
Summer term,	25.00	
	<hr/>	
Room, in advance.	\$8 to \$16 term,	\$80.00 48.00
Board, \$2.50 to \$5 per week,		24.00 190.00
Fuel, \$5 to \$15,		95.00 15.00
Washing, 30 to 60 cents per week,		5.00 22.80
Military suit,		11.40 15.75
	<hr/>	
Expenses per year,	\$231.15	\$371.55

Board in clubs has been about \$2.45 per week; in private families, \$4 to \$5. The military suit must be obtained immediately upon entrance at college, and is used in the drill exercises prescribed. The following fees will be charged for the maintenance of the several laboratories: chemical, \$10 per



ZOÖLOGICAL LABORATORY



BOTANICAL LABORATORY

term used; zoölogical, \$4 per term used; botanical, \$1 per term (used by sophomore class,) \$2 per term (used by senior class;) entomological, \$2 per term used. Some expense will also be incurred for lights and text-books.

SCHOLARSHIPS.

Inhabitants of Massachusetts can, in most cases, obtain scholarships by applying to their state senators. A limited number of scholarships are available for non-residents of the state.

LABOR FUND.

The object of this fund is to assist students dependent on their own efforts, by furnishing them work in the several departments of the college.

THE WORK OF OUR ALUMNI.

In estimating the work of any college the readiest and perhaps the only way is to consider the measure of success attained by its graduates. If these men after spending four years in preparation within her walls find themselves but imperfectly fitted for their life-work then the college cannot long remain in public favor; if, however, the alumni show themselves efficient and well-trained along their chosen lines then the college is accomplishing a noble work and need have no fear for its future. Of the graduates of this college about five hundred are now living, many of whom have reached positions of eminence and power. The excellent work that our graduates are doing is assurance enough that no person need hesitate to enter the Massachusetts Agricultural College from a fear that the training afforded is insufficient.

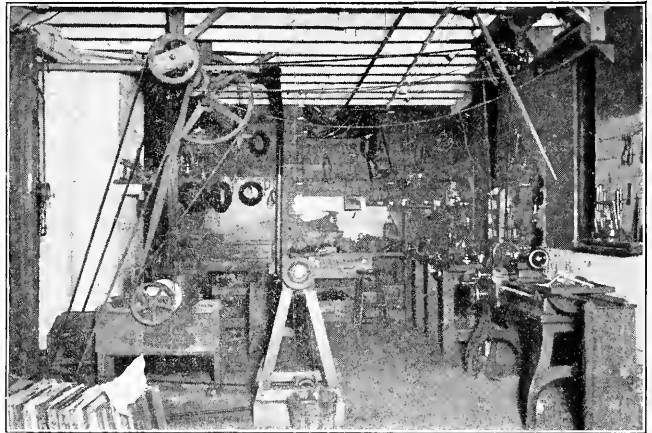
A survey of the following statement will reveal many points of interest, illustrating the fact that the college is especially strong in what it stands for before the world, as well as in all that fits a man for life in many and varied lines of work.

The following statement has been prepared from available statistics and is approximately correct January, 1900:

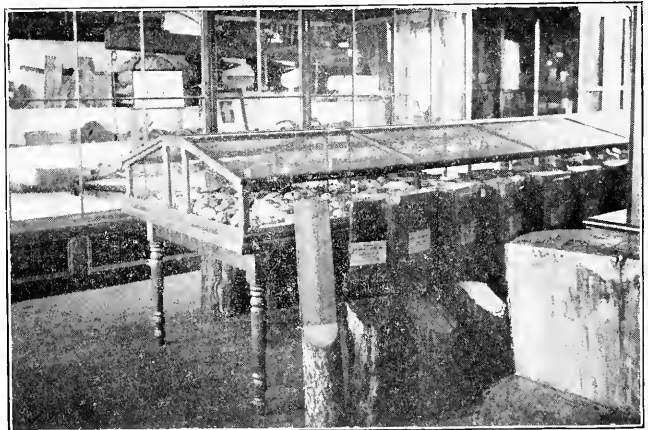
Farmer's, 82; in business, 71; teachers not in agricultural schools, 22; teachers in agricultural schools, 19; teachers of agriculture, 2; total number of teachers, 43; book-keepers, etc., 27; miscellaneous; (occupation not determined), 26; physicians, 26; farm superintendents, 22; civil engineers, 18; graduate students, 16; chemists, 3; chemists in experiment stations, 13; total number of chemists, 16; manufacturers, 15; manufacturers and dealers in fertilizers, 13; lawyers, 12; electricians and electrical engineers, 11; landscape gardeners, 10; market gardeners, 10; florists and nurserymen, 10; veterinary surgeons, 9; journalists, 8; agricultural journalists, 3; total number of journalists, 11; entomologists, 5; dentists, 5; clergymen, 5; architects, 4; in dairy bureau and board of agriculture, 4; experiment station directors,



VETERINARY LABORATORY



MECHANICAL LABORATORY



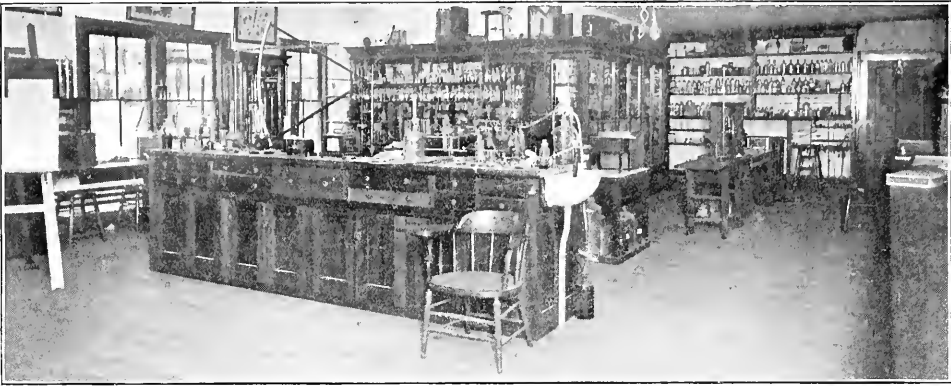
HORTICULTURAL AND FORESTRY MUSEUM



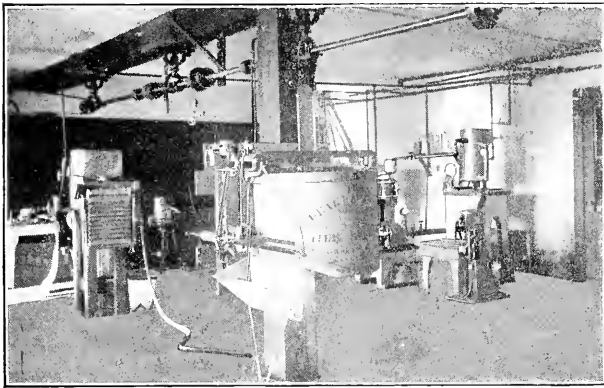
HORTICULTURAL LABORATORY

BOTANIC MUSEUM

DURFEE PLANT HOUSE



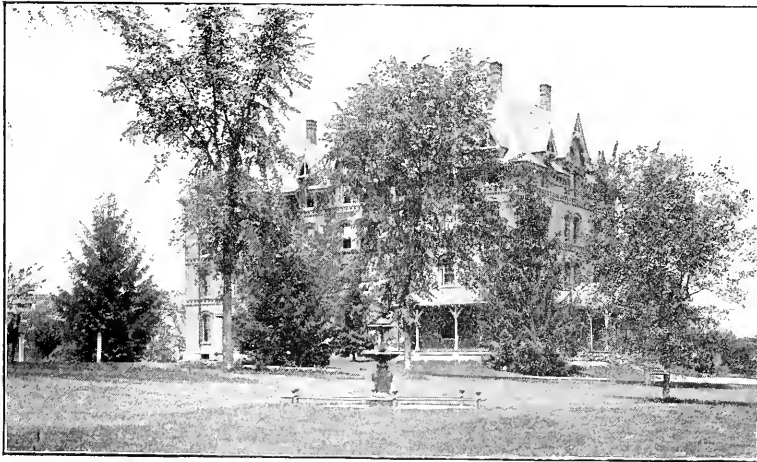
THE PHYSIOLOGICAL LABORATORY



DAIRY LABORATORY

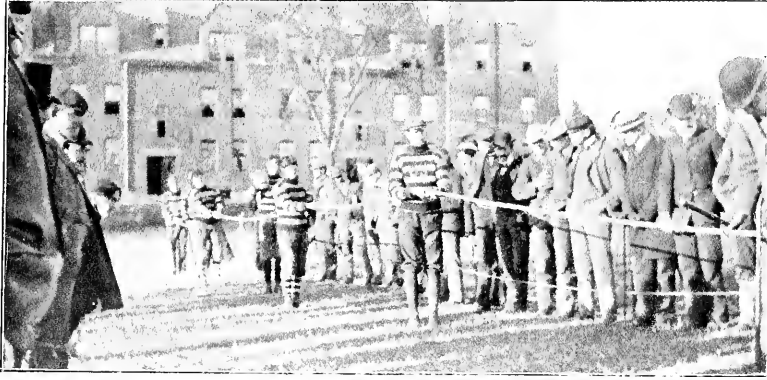


ZOOLOGICAL MUSEUM



NORTH COLLEGE

4; college presidents, 2; miners, 2; seedsmen, 2; mechanics, 1; railroad work, 1; province governor of Japan, 1; president of Massachusetts cattle commission, 1; vice-director, experiment station, Washington, 1; secretary of Guernsey Breeder's association, 1; member of House of Lords, Japan, 1; superintendent of creamery, 1; meteorologist, 1.



THE ROPE PULL



THE PROMENADE



STUDENT'S ROOM

I love that old Botanic Walk, the pond, the brook and meadow
The stately poplars growing there, and every dusky shadow.
Each spear of grass, each leaflet, and each modest little flower,
Are mine to-day, though they were but the children of an hour.

I love to think of those old days, so pleasant to remember,
As on some stormy, wintry night, the yew-logs' glowing ember
My mind sends drifting backward through the days that now are over,
When we were boys and wandered here amid the grass and clover.



AGGIE LIFE.

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NO. 11

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Editorials.

IN another column appears an article relative to a change of name of the college paper. It is needless to say that the question is one of the most important that has arisen, since it may lead to a complete change of policy on the part of the student body. It is not to be decided hastily, and we hope that it will be given the most careful consideration.

WE desire to remind the students of the social gathering in the Chapel next Friday evening. In taking the initiative in the difficult problem of relieving our lack of social advantages the ladies of our faculty have earned for themselves the gratitude of every friend of the college. It behooves the student body to see that their efforts are crowned with success.

A WORD as to the attendance of the students at our home games is perhaps needed. Our manager has been very fortunate in arranging his schedule in that nearly half of the games are to be played either on

Pratt Field or on the college campus. It ought not to be necessary to remind the student body of their duty in such a case. There can be but few things more discouraging to a team at the beginning of its season than to notice a lack of support as manifested by a small attendance, yet this was precisely what occurred in the second game of the practice series. If the members of the team are able to sacrifice time each day for practice, it certainly seems as though the rest of us might at least make an effort to attend the regular scheduled games.

THE outlook for a creditable season in base ball is encouraging, and we wish the team all success. The temporary abandonment of track athletics, while deplorable in many ways, has at least had the advantage of concentrating all our energies on base ball. As a result greater interest in the sport is evident this spring than ever before. The schedule as announced is by far the best ever arranged. It includes many of the strongest college teams of New England and is an excellent testimonial to the improved standing of the

college. The practice series with Amherst resulted quite satisfactorily, the second game in particular showing a confidence, good judgment and steadiness at critical moments on the part of our team, the lack of which has lost many games for us in the past. The team is practically that of last year, the new material brought in is extremely promising, and with sufficient practice there is no reason why the nine should not make for itself a most creditable record.

WE publish elsewhere a brief abstract of the college catalogue. There seems to be little need for further editorial comment. The catalogue is essentially that of former years and the opinion of the student body is too well-known to need additional expression here. We suppose it must be economy to smother the eighty pages of the college catalogue proper under the weight of one hundred and forty of other irrelevant matter, though we notice it is not the course pursued by the most progressive institutions of the country. If the primary object of the catalogue is to serve as a sort of supplement to the *Old Farmer's Almanac*, or some similar publication, we judge it may be termed a success. But if as we supposed, the catalogue is the official representative, the agent, so to speak, of the college in the securing of new students, it must be confessed that there is plenty of room for improvement. We furthermore regard the lack of improvement as particularly unfortunate at this time. Last Commencement our alumni, feeling that a more aggressive policy in the obtaining of more students was desirable, appointed a committee of college advertising. This committee has raised a considerable sum of money and published at various times pamphlets presenting in attractive way the educational advantages of the college. These have been very widely distributed throughout the state and there can be no question that they have created an interest among prospective students. Could this work have been adequately supplemented on the part of the college by a neat, compact and thoroughly artistic catalogue we feel sure that much good might have been done. As it is, a golden opportunity has been lost and it remains to be seen whether the efforts of the alumni will not be more than counteracted by the unprepossessing appearance of the official catalogue. The college has been handi-

capped from the start by the necessity of competing with older and more widely known institutions. The drawback is serious but still not insurmountable. It can be largely removed in time by liberal advertising. And what better advertisement can there be than an attractive catalogue thoroughly creditable to the institution which it represents?

Literary.

THE CENTENARIAN.

It does seem sort o'strange and queer,
The old man's still a-sittin' here
In the same old place, the same old cheer,
While all the rest are dead and gone
To live in that eternal home,
Where I guess I soon will foller em on.

There was eight on us once lived here,
This, you see, used to be father's cheer,
He and ma went in the very same year.
Though both of 'em lived to a good old age,
He was eighty years old when he turned the last page
Of his Bible, and went to meet the "Great Sage."

Then there was good old Uncle Nate,
He left us in eighteen twenty-eight,
He never had no children, and he never was yoked to a mate.
Our "old bachelor uncle" he lived and died,
That was one reason made me decide,
Not to hitch to a wife, so I've never been tied.

I was the eldest child of five,
And yet I'm the last one left alive,
And a-thrivin' yet, and likely to thrive.
But that ain't strange; don't the "good book" say,
"The last shall be first" to be weak and gray,
"And the first shall be last" to be taken away.

Yes, jest a century old to-day,
And still feelin' young, and chipper and gay,
T'wont be long now though 'fore I'm laid away.
Yet I ain't c'that kind with one foot in the grave,
I 'aint got but one foot and one leg anyway.
Guess I'll go in head first, and let that one wave.

Yes sirs, to-day jest a century old,
*The year I was born was when the bells tolled
And men prayed in the churches for Washington's soul.
The next after me was brother John,
He was born in eighteen hundred and one,
And 'bout twenty months later, Sam come, the third son.

Then a couple o'years after our movin' out here,
From New York, the old state where I'd lived for eight year,

Jane 'rived, the first girl, course that made her more dear.
And the last and the best of us, dear little Dave,
Neither doctors, nor nursin', nor physic could save;
"And the last shall be first" to be laid in the grave.

And John, he got killed in the Mexican war,
—His wife and his one child had died long before—
I went to the war too and saw fightin' galore.
That's where my left leg was carried away.
"Pretty hard on an old man," did somebody say?
I got well quick enough, but I can't kneel now to pray.

And Jane left the old home for a man in Kentucky,
Sam went back to New York, and they both had good luck
'Till sixty-one come with its war; and that tuk
The spirit out of 'em. They both lost a son.
Most as soon as the fightin' at Sumpter was done.
They gave to their country, Jane one, and Sam one.

Neither one of 'em lived very long after that,
Died 'thin a month of each other, and that
Is why, now all that left is 'Old Nat';"
And I've lived through the year o' the war with Spain
When "Old Glory" come out on top again;
And now I'm a willin' to lay down my cane.

*Written in '99.

A TERRIBLE EXPERIENCE.

"How near the camping place are we, George?"
My brother asked me this question as we were canoeing up the Androscogin River one hot day last July. We were a party of four—my two cousins, brother and myself on a little fishing and hunting trip in Maine.

"We have nearly two miles more to go and then we will pitch our camp." With the light load that we had, it didn't take long to travel two miles. As our party had camped together before, it took us only a short time to get things ready for night. After supper, we laid our plans for the morrow and then went to sleep. The next day passed quietly enough, and when evening came my brother, Edgar, and I took one of the canoes and paddled up stream for about four miles. Just before we started an old log driver told us to watch out for the logs.

It was a beautiful summer night. The stars sparkled in the heavens; the trees cast their dark shadows out upon the water; and the ripples caused by our canoe looked like long silver ribbons trailing in the water behind us. The morrow had not risen when we arrived at our fishing ground.

The river was very wide, almost a lake at this point. At the upper end of this lake a small island

caused the current to split and flow close to each bank. Thus we were in comparatively still water, being near the middle.

The fish were biting very well. My brother had made some big catches. Although I was fascinated with the sport, I could not help noticing the dull splashing and bumpings that came from both shores. I was able to see nothing because of the pitchy darkness, but I was conscious of a nervous feeling that had crept all over me. Becoming uneasy, I spoke to Edgar about it. He laughed and went on with his fishing.

I became more and more uneasy. What was I to do! Finally, I worked myself up to such a state that I became desperate. "Come, Edgar, something's wrong. We must get out of here." "Well, if you say so, I suppose we must go. You can take the stern on the way down."

We reeled up our lines and dipped our paddles into the water. The canoe went along all right for a little while, but soon I began to have trouble to keep the bow from veering off. We had struck a cross current that was not there when we came up. This served to increase my nervousness.

When we got down towards the narrows, we came upon a log every now and then. I cautioned Edgar to look out for them, because if we should run into one, it would sink us.

In spite of all my cautions, I think he must have lapsed into a dream, for as we paddled along he was very silent. Suddenly, he began to shout and try to turn the canoe up stream. He succeeded in bringing it around broadside, when I saw not twenty paces in front of me a writhing mass of logs and foaming water.

I thought we were doomed. There we were right in the jaws of a monster that was only waiting to destroy us. I yelled to my brother to paddle for his life. Then I exerted myself as I never had done before. We paddled; we strained; we put every bit of muscle into our paddles, which bent like bows, in our frantic efforts to stem that current which would have carried us death.

After what seemed a never ending period of time, I could see that we were gaining inch by inch. I shouted a word of encouragement to Edgar and that seemed to give him new life.

Slowly, but surely, we were steadily pulling away

from an awful death. We were both nerved up to superhuman efforts, and after a terrible struggle, we succeeded in gaining still water.

This was not the end of our trouble. We were out of those jaws of death, but we were still surrounded by uncanny floating monsters. We must do something very soon or they will be in on us. Swimming would not help us in any way, and neither of us knew how to step the logs as the drivers do. We decided that we must crawl across them.

The logs ran smoothly on each side of this lake until the two currents met at the lower narrows. Then there was a terrible disturbance. We thought that if we crossed one stream of them, we could get on shore easily enough.

But we had reckoned without our host. We didn't stop to think that we must cross in utter darkness. Nevertheless, we started. The first thing I did was to creep over a few big logs and fall into the water. As I took the lead, Edgar was able to come along after me more easily.

I think we must have been nearly an hour crossing that narrow stream of logs. After many falls and bruises, we succeeded in reaching the precious land, weak and exhausted. Removing some of our wet clothes, we lay down under a large fir tree and fell asleep. When we awoke, the sun was high in the heaven. As we were dressing, our cousins appeared. They had been searching all the morning for us. Edgar and I will remember that terrible night as long as we live.

SHALL THE NAME OF THE COLLEGE PAPER BE CHANGED?

Toward the close of the last term numerous complaints were made to members of the *Life* board that the present name of the college paper was unsatisfactory. To ascertain the extent of the dissatisfaction, on April 5th a test vote of the student body was taken in mass meeting on the following question: "Do you think that a change in the name of the college paper would be for the best interests of the college?" No time was available for discussion, the idea being simply to get the individual opinions of the students. The result of the ballot showed 52 in the affirmative and 24 in the negative. The editors then met and considered the matter, finally deciding to hold the matter open

for discussion till May 27th, getting as many opinions as possible, and then to decide definitely whether further action was desirable. Accordingly, we now submit the question to our subscribers, hoping to hear from all, and especially the alumni. The columns of the paper are thrown open for discussion, and we shall be glad to receive communications on the subject.

The objections to the present title apply, we believe, almost entirely to the use of the word "Aggie." It is held that either the term is a contraction of the word "agricultural," and signifies it, or else that it is a mere corruption of no meaning whatever. If the latter case is true, then it should be abolished as useless. If the former, it is objected that the use of the word gives undue prominence to a single branch of our studies, thereby misleading the general public by disregarding the other important lines of education offered by the institution. It is also thought that as a sort of nickname, the term is not sufficiently dignified for official use. According to this view, the change of name in the college paper would logically be followed by a change in the college song and yell, and in fact by a complete dropping of the word "Aggie" from our college vocabulary. This is clearly implied in the 1901 *Index*, when it says: "It is to be hoped that the college will adopt a new yell for *Massachusetts*, and give to agriculture, in connection with our athletics, a less prominent place. Is there any sense in introducing into our yells one of subjects of study and entirely neglecting the State that supports and owns the college? *Massachusetts* is far more dignified and appropriate."

The opposition to a change in name is based on two reasons. First, it is argued that the name has become established by long years of use and cannot easily be dropped. The paper has made a reputation for itself among the alumni, the advertisers and the college world under its present name, the advantages of which would be lost if a new name were adopted. Considerable trouble and expense would also be necessary, and it is feared that from a financial standpoint a change would be disastrous for many years. The second reason given is that the present name is *distinctive*. The official title of the college is long and cumbersome; the contraction is short and specific. It has come to stand for the college just as "Tech" does for M. I. T. To change would be to run the risk of

confusion, and thereby injure the college more seriously than the present title can do. According to this view, is it not the best plan to "let well enough alone?"

Such, briefly stated, are we to believe the main arguments on both sides. It is evident that the students at present favor a change, and so far as we could learn, it is the desire of practically all of the members of the Faculty. In case this call for opinions meets with little or no response, we must conclude that our alumni are either indifferent or else have no objections to the change being made. In this case, the wishes of the students will almost certainly prevail. We hope, however, for a general expression of opinion, that the board may ascertain accurately the prevailing sentiment and act accordingly.

ANNUAL REPORT OF THE YOUNG MEN'S CHRISTIAN ASSOCIATION.

During the past year the Young Men's Christian Association has endeavored to follow the principles of the great movement of which it is a part in building up a clean, strong, manly character in its members and in advancing the Kingdom of God in this college.

The hand-book was published as usual during the spring term and the edition was exhausted before the demand for it had ceased. Five representatives of the Association attended all or a part of the sessions of the Northfield Student Conference, which proved to be the largest ever held. The enthusiastic report brought back by these delegates as to the deep spiritual blessings received and the good times enjoyed should convince anyone that there is no more ideal place in which to spend a ten days' outing than at Northfield, where every need of body, mind and spirit is remembered and ministered unto. The delegates were Messrs. Franklin, Tottingham, Dacy, Bridgeforth and Hinds.

Four Bible classes have been maintained throughout the year and one for the Winter Course men during last term. The average attendance upon the Bible classes for the year has been 22. The increased interest in this department of the work is very encouraging. The leaders for the classes have been as follows: Senior Class, Professor F. S. Cooley; Junior, Dr. G. S. Walker; Sophomore, Professor S. F. Howard; Freshman, Messrs. J. B. Knight and W. E.

Hinds; Short Winter Course, Mr. B. H. Stackpole.

The devotional meetings have been held as usual through the year with an average attendance of 19; in addition to the regular meetings nine speakers have addressed the Association.

The budget this year is somewhat larger than usual. \$70.29 has been received from student members and others who are interested in the work; \$49.00 has been pledged or paid by members of our Faculty, and \$18.00 has been given by Alumni and friends, who thankfully remember the help which they received from the Association while they were in college. In addition to these sums, the Association wishes to express its thanks for gifts to Mr. M. H. Munson for a desk for the secretary's room, to Miss Mabelle Paul of Lynn, Mass. and Mrs. Levi Stockbridge of Amherst, through whose kindness the Association received a large portrait of D. L. Moody; also to Mr. B. K. Jones, '96, Mr. A. F. Burgess, '95, Dr. H. T. Fernald and Professor R. S. Lull for smaller, but no less acceptable, donations.

COMMUNICATION.

EDITOR-IN-CHIEF, AGGIE LIFE,

Dear Sir:—Will you kindly insert the following in your next issue:

In the preparation of the material for the last AGGIE Life, and for the reprint made for advertising purposes, great credit is due the members of the Alumni Advertising Committee, who took upon themselves nearly the entire burden of its arrangement and the successful completion of the enterprise.

Yours truly,

CLARENCE E. GORDON.

LECTURES.

The fourth lecture under the direction of the Natural History Society was given in the Chapel Friday evening, March 1, by Dr. H. B. Loomis of Amherst College. His very interesting subject, "Evolution of North America," was well illustrated by maps of the continents in different geological ages and by restorations.

Our earth is supposed to have been a quantity of gas thrown from the sun. As this gas began to revolve and liquefy a crust formed and as it cooled it began to shrink and immense wrinkles were formed which we designate as mountains.

The age of the world is estimated at one hundred million years. At that time nearly everything was under water. The American continent then consisted of what is now New England, the Central states and a small portion of Canada.

About seventy-five million years ago plants made their first appearance. These were of a very low order. The animals of this period were jelly fish and single-celled animals.

All this time the land had been rising and forming inland lakes and swamps. Thirty million years ago the land where the Appalachian mountains now are was greatly disturbed, the swamps were buried and as a result the great coal beds were formed. After a period of sixteen million years the North American continent extended to California. Two million years after this the Rocky mountains were formed and the higher forms of life made their appearance.

On Friday evening, March 8, Prof. John Tyler of Amherst College gave a very interesting lecture on "The Survival of the Fittest."

The speaker first explained the gladiatorial theory which for a long time was considered the only correct one. It is the theory that the form fittest to survive is the one which can procure the most food, reproduce the fastest and can tread down all enemies. But this theory does not seem to hold true.

Beginning with the early paleological history we find three forms of life: the molluscs, the crustacea and also a small worm-like form.

In the Carboniferous age the continents had risen and the air was purified and made suitable for breathing by the land animals. The molluscs had made little progress. The crustacea had developed a good deal and from them came the insects. But the future seemed to lie with the descendants of the worm. Of these there were the reptiles which were magnificent in development. The birds, which had not reached their highest development, and a small omnivorous animal about the size of a rabbit were also found. No one would probably have selected the small animal as the fittest to survive. For several reasons the first would have been chosen.

In the next period which was the Tertiary the Reptiles have disappeared, the birds have gained very little and are entirely outclassed by the descendants of the small mammal. The forms with dagger canine

teeth now appeared. Of all families we probably would have picked out the cat as the fittest. The cat outstrips man in everything but in brain development.

There seems to be some law of fitness, just what is not known. It is evident that the form which is fittest to survive is the one which has not reached its fullest development. Nature says "move on" and the form which does this is the fittest to survive.

The last lecture of the course was delivered March 15, by Prof. George Dimmock of Springfield. He chose for his subject "Some Curious Relations between Plants and Animals."

There are some plants which actually digest animals. The Venus's Fly-trap is a good example, also the *Caltha*. Experiments made with the *Drosera* proved that this plant, when fed with meat or flies, gained twenty-one per cent. in growth.

It is a well-known fact that insects aid in fertilization. Insects in search of honey carry the pollen from one plant to another. Water plants are often fertilized by some of the lower forms of animals such as the *Vorticelli*. The house-fly carries around the bacteria of typhoid, cholera and yellow fever, while it has been proved that the mosquito is responsible for the spread of malaria. Such plants as the Burdock and Devil's Pitch-fork are disseminated by attaching themselves to the fur or wool of passing animals.

Plants are protected by animals. The nests of white ants contain material which gives rise to the growth of a certain fungus which the ant afterward uses as food. Leaf-cutting ants deposit the leaves in their nest and from the leaves a fungus grows.

In the East and in southern Europe, ants are known to harvest the grain. In Texas there is an ant which cultivates a certain kind of grass the seed of which it afterward uses as food.

Some ants live on plants and protect them from other insects. The *Scapira* tree makes provision in its structure for the ants. A weak spot is left here and there through which the ants enter and deposit their eggs. The young ants after hatching feed on the juicy pith. If an enemy approaches these ants swarm out in great numbers and protect the tree.

The University of Chicago is to have a new \$200,000 club house for the use of students.

THE COLLEGE CATALOGUE.

The college catalogue does not differ very essentially from those of former years. The President's report announces the deaths of John D. W. French and James S. Grinnell from the board of trustees and of Percy F. Felch and George C. Clarke from the student body. Forty men entered the freshman class, and the total shows a slight gain most marked in the graduate department. George F. Babb has been added to the corps of instructors. For the purpose of lengthening the summer vacation the college year has been re-divided into two semesters instead of three terms as formerly. The library has been increased by gift and purchase, 1,625 volumes making a total of 21,665. The exhibit of the college at the Pan-American Exposition is described in detail. An appropriation of \$23,100 is asked for, to be used in repairing and repainting the college buildings, providing suitable bathing facilities in the Drill Hall, and most of all for a new boarding-house.

The total number of students is placed at 186, divided as follows: Graduate courses 14, graduates of 1900, 23, seniors 30, juniors 25, sophomores 41, freshmen 39, winter course 9 and resident graduates 12.

The requirements for admission have been raised by the requirement of the whole of plane geometry instead of the first two books only, and of general history in place of United States History, Political Geography, Arithmetic and the Metric System are no longer required. The courses of study have been somewhat changed to correspond to the semester system and new courses in French, German, Geology and Zoölogy added to the curriculum.

The financial outlook is satisfactory. The total receipts for the year were \$82,510.85 and the expenditures \$74,070.29. The amount paid for salaries was \$29,160.00 and for advertising \$269.33. The total valuation is about \$350,000.

OUR EXHIBIT AT BUFFALO.

A considerable portion of the Agricultural Exhibit of Massachusetts, for the Pan-American Exposition to be held in Buffalo this summer, has been arranged and prepared by the College under the direction of the Agricultural, the Horticultural, and the Botanical departments. The exhibit of the Agricultural de-

partment consists of thirty colored plates, forty-two by thirty inches in size, drawn by C. A. Tinker of the sophomore class, and showing diagrammatically the agricultural statistics of Massachusetts as compared with those of the principal agricultural states of the Union. Among these are charts showing the acreage devoted to cultivation and pasturage, the amount of live stock, dairy animals and dairy produce; the amounts of grain raised,—wheat, oats, rye, and corn; the hay crop, potato crop, tobacco crop, cranberry crop and apple crop. The work being done for the promotion and encouragement of Agriculture is also shown: the number of agricultural societies, the total membership, the number of agricultural fairs and the number and valuation of prizes awarded for agricultural exhibits.

The Horticultural department has prepared a case containing plaster casts, modeled by Prof. S. T. Maynard, showing the original fruit and the present fruits as improved from the original by care and cultivation. The models are colored and resemble the fruit which they represent very closely.

The exhibit arranged by the Botanical department shows sixty specimens of the common trees of Massachusetts. The most common trees were chosen and a typical tree selected and photographed when naked and in foliage. Three sections of the wood were obtained, radical, transverse and tangential. The sections are about four by two and a half inches in size and are of about the thickness of writing paper. They show beautifully the grain and rings of the wood. The specimens are each arranged in a vertical column, with the sections of the wood at the top, immediately under that the photograph of the naked tree, and the tree in foliage and under all a label bearing the common name and the botanical name of the tree. Three specimens are framed together in a heavy oak frame with a Flemish finish. The photographs and sections are surrounded by a mat of a neutral tinge. The top of the frame bears a general label, "Massachusetts Trees," in black letters on a gilt background. There are twenty frames in all, each frame being two and one-half by three feet in size.

The department has also framed and sent to the fair nine plates drawn by Prof. R. E. Smith, illustrating Bulletin 55 of the Hatch Experiment Station.

The plates are pen and ink drawings of a microscopic worm, the Nematodes, which is very injurious to the cucumber and tomato in the plant houses. They show the complete development of the worm in all its different stages from the egg to the adult; also the different species and the infested root of the diseased plant.

Two soil charts of Massachusetts have been prepared: one showing the mechanical analysis of six typical soils from six different localities in a line across the state; the other, six highly specialized crop soils. An outline map of the state was mounted in the center of a large frame and around it were arranged the six soils mechanically analysed and mounted in vials to show the analysis. Each analysis requires nine vials, one to show the amount of organic matter, and one for each of the eight portions of the soil separated according to the diameter of the grains, the largest being the gravel, or grains of from two to one millimeter in diameter and the smallest being the clay, the grains of which are from .005 to .0001 millimeter in diameter. On the map the soils were located. The localities selected for the first chart were Eastham, Bridgewater, Natick, Spencer, Amherst and Pittsfield. The crop soils selected were the asparagus soils of Orleans and Concord, the lettuce soils of Arlington and Worcester, the onion soil of Sunderland and the tobacco soil of Hatfield.

NOTICE.

Aggie Life Special No. 2, containing statements of value to all persons interested in college education, will be sent to addresses forwarded to the undersigned committee until the supply is exhausted.

**Alumni Advertising Committee,
Amherst, Mass.**

JUNIOR CHEMICAL TRIP AND BANQUET.

The Juniors combined business and pleasure when on April 18th they took their annual chemical trip with Dr. Wellington to Springfield and vicinity and then wound up the program by a rousing banquet in the evening. The party left Amherst at 8-15, proceeding by trolley to Mt. Tom station. Here the mills of the Mt. Tom Sulphite Pulp Company were inspected and

the various stages in the production of wood pulp from spruce logs observed in detail. The train was then taken to Holyoke where the manufacture of writing-paper was observed in the mills of the Parson's Writing Paper Co. The party dined at the Cooley House in Springfield, spending the remainder of the day in that city at the plant of the Springfield Brewing Co., the Springfield Arsenal, and other points of interest.

In the evening at the Cooley House came the banquet tendered to the Juniors each year by the Freshmen. Every member of the class was present and the affair was thoroughly successful. L. C. Claflin served as toastmaster and toasts were responded to as follows: "The Class," J. C. Hall; "Women, Wine and Money," R. W. Morse; "College Fossils," C. E. Dwyer; "Only a Boy," E. F. McCobb; "The stray sheep of the college fold," S. L. Smith; "V. A. Gates; "Life and its Vicissitudes," H. L. Knight; "The Class of '04," A. L. Dacy.

Much credit for the success of the day is due the committee of arrangements, V. A. Gates, R. W. Morse and C. E. Dwyer.

College Notes.

—All out for baseball.

—M. F. Ahearn, ex-'01, has again entered College.

—Gilbert of Brookfield has entered the freshman class.

—The special edition of AGGIE LIFE is now ready for distribution.

—An attempt is being made to form a prohibition club among the students.

—A tax of \$3.50 has been levied on the students to support the baseball team.

—Couden and Peck, 1904, have been assigned positions on the AGGIE LIFE Board.

—A complimentary banquet given by 1904 to the Juniors was held at Springfield April 18th.

—Victor Gates has been elected to the position of reading-room director in place of H. L. Knight resigned.

—The junior class visited the Springfield breweries last week under the supervision of Dr. Wellington of the Chemical department,

—The annual catalogue and report of the Mass. Agri'l college for 1901 has made its appearance.

—Capt. Anderson has recovered from his recent illness and is again able to attend to his duties as commandant.

—That band of freshmen, popularly known as the "Sagamore Seven" have leased, and are now occupying the house No. 62 Pleasant St.

—The senior class have elected the following officers for this term: Pres't, Gamwell; sec'y and treas., Chickering; sergeant-at-arms, N. Hunting.

—The State committee on location of College buildings recently visited the college for the purpose of choosing a site for a new boarding-house.

—On April 11, Aggie was defeated by Amherst in a practice game of ball the score being 5-2, but on the 18th the tables were turned, the score being Aggie 2, Amherst 0.

—It is with pleasure that we note the great improvement of the College band. Its enrollment has been increased and altogether the band presents a very fine appearance.

—R. D. Gilbert, '00, has assumed the duties of G. F. Parmenter as instructor of Chemistry. Mr. Parmenter has been appointed assistant chemist in the experiment station at Kingston, R. I.

—The reading-room directors for this term are: Juniors, H. A. Paul, H. L. Knight, A. L. Dacy; sophomores, W. W. Peebles, R. H. Robertson, E. B. Snell; freshmen, F. D. Couden and A. L. Peck.

—Following is the list of officers for the junior class for the spring term: Pres't, R. W. Morse; vice-president, J. H. Belden; sec'y and treas., J. C. Hall; sergeant-at-arms, H. E. Hodgkiss; baseball captain, V. A. Gates.

—The ladies of the faculty are to hold a reception and informal-gathering in the chapel Friday evening. Many young ladies from Smith college, Amherst and near-by towns have been invited so that a large attendance is assured.

—The officers of the class of 1903 for the spring term are: Pres't, E. B. Snell; vice pres't, S. C. Bacon; sec'y and treas., G. D. Jones; sergeant-at-arms, P. W. Brooks; class captain, G. L. Barrus. P. W. Brooks was chosen baseball captain.

—The class of 1904 have elected officers for this term as follows: Pres't, H. D. Newton; vice-pres't, R. P. Gay; sec'y and treas., J. W. Gregg; sergeant-at-arms, A. F. Haffenreffer; class captain, J. Kelliker; baseball captain, J. Cummings.

The class pipe chosen by the Sophomores consists of a French briar bowl with an amber mouth-piece. The bowl is decorated with an "M" over which are the numerals 1903 engraved in the wood. Altogether the pipe makes a very attractive ornament.

—The senior class have elected the following committees for the Commencement exercises: General committee, Gamwell, Whitman, Wilson, Brooks, Hunting, Leslie, Todd chairman; committee on class bed and class tree, Hunting chairman, Dawson, Chickering, Tashjian, Pearson, Smith; committee on invitations, Whitman; class ivy, Pearson.

Athletic Notes.

The prospects for a successful season is at the present time very encouraging. A very good schedule has been arranged and a goodly number of men have presented themselves as candidates. The make up of the team is at present about the same as that of last year with the exception of two new men. Cummings at first, is showing up very well. Graves who played first last year is now playing in the field. Gregg at third handles himself very well and will probably make a good man for the position. Bowler shows remarkable improvement in pitching and promises to make a good man. Paul at second and Ahearn at short are both playing good ball and will probably play those positions through the season. Bodfish the captain and pitcher is playing his same good game as of last year. Henry at catch needs lots of practice.

AMHERST, 5; AGGIE, 2.

The first game of the season was played on the campus on Thursday, April 11th, with Amherst. It was the first of the two practice games and as both teams were out for the first time the playing was loose and erratic. The batting of both teams was very poor Amherst getting only three, and Aggie four hits. The features of this game was the pitching of Bowler and playing of Paul and Ahearn for Aggie and Rushmore and Shay for Amherst.

Innings,	1	2	3	4	5	6	7
Amherst,	0	2	0	0	3	0	0-5
Aggie,	0	0	0	2	0	0	0-2

AGGIE 2; AMHERST 0.

In the second practice game Aggie defeated Amherst by a score of 2-0. The Aggie team showed marked improvement in both team work and batting while Amherst was slow and at times did not know what to do. Bowler did the twirling for Aggie and did very well, holding Amherst down to five hits. Dunleavey did the pitching for Amherst, allowing only four hits. Amherst several times had men on third, but was prevented from scoring by the good playing of the Aggie team. An error and two hits in the fourth inning gave Aggie the only two runs of the game. Paul reaches first on a hit and steals second. Cook gets first on base on balls. Cummings then hits the ball to Chase who allows it to go by, Cummings reaching first and Paul going home and Cook reaching third. On a hit by Ahearn, Cook scores, making a total of two runs. The features of the game were the playing of Paul and Cummings and the pitching of Bowler for Aggie and King and Shay for Amherst.

	AMHERST.						
	A.B.	R.	B.	P.O.	A.	E.	
Sturgis,	3	0	1	0	0	0	
Bartlett,	3	0	2	0	0	0	
Dunleavy,	2	0	0	0	1	0	
King,	3	0	0	7	1	0	
Chase,	2	0	0	0	1	1	
Couch,	3	0	0	0	0	0	
Shay,	3	0	0	2	0	0	
Hawley,	2	0	1	0	0	0	
Field,	2	0	1	4	1	3	
	AGGIE.						
	A.B.	R.	B.	P.O.	A.	E.	
Paul,	3	1	1	2	3	1	
Pierson,	2	0	0	0	0	0	
Cook,	1	1	0	1	0	0	
Cummings,	2	0	0	7	0	0	
Graves,	3	0	1	2	1	0	
Harris,	3	0	0	1	0	0	
Bowler,	2	0	0	1	2	0	
Gregg,	2	0	0	1	1	0	
Bodfish,	0	0	0	0	0	0	
Innings,		1	2	3	4	5	
Aggie,		0	0	0	0	2-2	
Amherst,		0	0	0	0	0-0	

BASE BALL SCHEDULE.

- April 11, Amherst.
" 15, Amherst.
" 22, Amherst.
" 24, Wesleyan at Middletown.
May 4, Storrs at Amherst.
" 9, Middlebury at Amherst.
" 10, Middlebury at Amherst.
" 14, Univ. of Maine at Amherst.

- " 21, Univ. of Vermont at Amherst.
" 30, Trinity at Hartford.
June 4, Vermont Academy at Saxons River.
" 5, Middlebury at Middlebury.
" 6, Univ. Vermont at Burlington.
" 7, Univ. Norwich at Northfield.
" 15, Storrs at Storrs.

Alumni.

- '71.—G. H. T. Babbitt is now in the employ of the Chicopee M'f'g Co.
'83.—Dr. H. J. Wheeler, chemist of the Rhode Island Experiment station. spent a few days in town recently.
Ex-'84.—A. W. Lublin is with the Kora Company, 525-527 Broome Street, New York.
'87.—Wm. Hunting Caldwell, Clover Ridge farm, Peterboro, N. H.
'90.—Rev. J. S. West has recently accepted a call as pastor to the Baptist church at Belchertown, Mass.
'91.—E. P. Felt, New York State Entomologist, lectured before the Massachusetts Fruit Growers' Association last month at Worcester on " Recent problems in the control of insects depredating on fruit trees."
'92.—E. C. Howard spent a few days in town a few days since.
'92.—Word has lately been received of the marriage of Chas. M. Dickinson to Miss Genenier Pritchard as Seattle, Washington. Mr. Dickinson is in the wholesale cut-flower business. Address 76 Wabash Ave., Chicago, Ill.
'94.—Chas. H. Higgins is again occupying his old position, having charge of the Ontremant Experiment station. Address 6 Union Ave., Montreal.
'94.—Dr. Bacon was in town recently.
'95.—Jasper Marsh, Consolidated Electric Light Co., Danvers, Mass.
'96.—B. K. Jones has recently entered the law office of Walter S. Robinson, Springfield, Mass. Address 60 Temple St.
'96.—S. W. Fletcher, Pullman, Wash.

'96.—It is with great pleasure that we announce the birth of a daughter, Natalie, to Mr. and Mrs. L. J. Shepard.

'96.—H. T. Edwards, 118 Barrister's hall, Boston, Mass.

'96.—Fred H. Read, 1168 Elmwood Ave., Providence, R. I.

'96.—Geo. W. Pasell, 257 Mt. Pleasant St., New Bedford, Mass.

'96.—Frank L. Clapp has resigned his position under the Metropolitan Water Board to accept a similar position under the city engineer of Waterbury, Conn. For the next two years he expects to be engaged raising the Wigwam dam and enlarging the reservoir which supplies the city of Waterbury. Address, box 233, Thomaston, Conn.

'97.—C. A. Norton, 30 Grave St., Lynn, Mass.

'97.—H. J. Armstrong was in town recently.

'97.—We are pleased to announce the marriage engagement of Philip H. Smith to Miss Edith Stevens, daughter of Mr. and Mrs. S. Stevens of Amherst.

'99.—W. E. Hinds gave an illustrated lecture before the Springfield Zoological club recently on "A group of curious little insects, unnoticed but not uncommon."

'99.—Wm. H. Armstrong, superintendent of schools at San Juan, Porto Rico, recently had a narrow escape from personal violence at the hands of an enraged mob of natives. It was only by the prompt action of five artillery men that Mr. Armstrong was rescued. The trouble arose from the fact that while the superintendent was harmlessly correcting a 10 years old girl her dress caught on a desk and was slightly torn. She reported to her mother that she had been abused, and a fracas immediately followed.

'00.—Geo. Parmenter has accepted a position as assistant in the Rhode Island Experiment station. Address Kingston, R. I.

'00.—F. Guy Stanley of Harvard Medical school, lately paid a visit to this College.

'00.—A. F. Frost has been spending the last few weeks in town.

Ex-'00.—Clayton Erastus Risley married to Minnie Mae Post, Feb. 14th at Walton, N. Y.

'95.—D. C. Potter, landscape engineer has about finished his work on the Pope estate at Farmington, Conn. The new house is nearly ready for occupancy and the estate will soon be turned over to the superintendent who will be A. B. Cook, '96.

'95.—A. D. Hemenway has by the burning of his father's house on the morning of Feb. 24, suffered the loss of nearly all his books, college collections and private effects, including what he valued most, his class pictures, his parents barely escaping with the clothing they wore. Hence the class of '95 is hereby called on by one of its members to show sympathy and do what is possible to lighten Mr. Hemenway's loss, by as promptly as may be, sending him pictures of themselves, either the old class pictures taken in '95, if they still have such, and if not, any subsequent pictures of themselves. Address, Prof. H. D. Hemenway, School of Horticulture, Hartford, Conn.

Department Notes.

VETERINARY LABORATORY.

The barrenness of the Veterinary Laboratory grounds is to be at last relieved. The senior class in Horticulture are making plans for the laying out and decoration of the land in that vicinity. Trees and shrubs are to be planted and the bareness, now existing there, removed. One of the finest buildings on the college grounds will thus be made as pleasing to the eye and artistic sense as any of the others. As this will be one of the most lasting and beneficial works of our senior class, exceptional results are expected.

Dr. Paige has made an offer which will be of interest to horse owners in this vicinity. Every Wednesday afternoon, from 3-30 to 5-00 o'clock he will be at the laboratory and will give free treatment to all horses brought to him during that time.

MILITARY DEPARTMENT.

Captain Anderson in his report in the catalog recommends that provision be made for an annual encampment of one week during which time special facilities would be offered for field exercises, such as extended order drill, duties of sentinels, target practice and castramentation. He believes tentage and equipment can be borrowed from the Adjutant-General of the Commonwealth. The most favorable

time for the encampment would be about the middle of May. This matter of annual encampment has been recommended heretofore in the reports of the Inspector-General to the Secretary of War.

He also recommends the purchase of a new silk flag for the battalion, so that it may be carried with the national colors on occasions of ceremony. The cost will be about twenty-eight dollars.

He recommends that the college give the band every encouragement within its means, and that a small appropriation for distinctive trimmings for the present uniforms be made.

Many needed improvements have been made in the drill-hall building during the past summer. A toilet room has been put in, also water pipes for heating placed in the lecture room and commandant's office. The whole exterior building needs painting, which the captain recommends to be done during the coming year and there should be shower baths near the drill hall, which is also used as a gymnasium.

EXPERIMENT STATION.

During the past four years experiments have been carried on at the Experiment Station working out to a solution of the causes and remedies for the diseases of the Aster. Last year three hundred and fifty varieties were grown; this year one hundred and fifty of the best were chosen, and the work continued with these. This plant is affected by a number of serious diseases, three of which are of fungus nature, and are readily understood; but one disease of a very distinctive effect is as yet beyond the skill of the department. No organism of any kind appears to be the cause of it, and it is in every way of a peculiarly obscure nature.

Lettuce and cucumbers are being experimented on in endeavoring to arrive at conclusions concerning the diseases of those plants. Last year a bulletin was issued, giving an account of the work on this subject. In the disease of the lettuce, known as the "drop," results have been obtained which show formerly unknown characteristics in the development of the organism, on the basis of which knowledge, a practical treatment can be applied.

CHEMICAL LABORATORY.

George F. Parmenter has resigned the position of instructor in the chemical laboratory to accept an

appointment as assistant chemist at the Experiment Station, Kingston, R. I. R. D. Gilbert of the class of 1900 has taken the position vacated by Mr. Parmenter. Mr. Gilbert is one of the most efficient chemists of those who have held this position, and was one of the best liked and most popular members of the class of 1900; it is hoped that he will continue to fill the situation for sometime to come.

LIBRARY.

The following books have been added recently to the library: Three works on Botany, "Plant Relations," by Coultas; "Agricultural Botany," by Percival; "Organography of Plants," by Goebel; "American Workmen," a volume on Political Economy; "A Treatise on Zoölogy," by Cankaster, in three volumes, the last one is yet unpublished; "Birds of Springfield and vicinity," by Robert O. Morris; "Squirrels and Other Fur Bearers," by John Burroughs; "The Mushroom Book," by Nina L. Marshall; "Uncle Terry," by Munn; "Eleanor," by Mrs. Humphrey Ward. Ten more histories of towns have also been placed on the library shelves.

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Editorials.

OWING to the inability of the state adjutant-general to loan to the college the camp equipage of the state militia, it is evident that our anticipated week of camp life will again have to be postponed. This we regard as unfortunate, since the value of the experience and training to be obtained from such a trip is unquestioned. However, it is well to remember that the lack of success of the attempt in no way detracts from the credit due the military commandant for his efforts. On the contrary, by his zeal in this and other matters, he has showed that he has thoroughly at heart the best interests of the student body.

WE desire at this time to congratulate the college band on the great improvement manifest in its work. It is no easy matter to organize from untrained material a really good band, and we are surprised to find that it has been done so soon. The appearance and showing made by the band during the last few drills are thoroughly creditable, and an increased interest in the

entire military organization is already apparent. The action of the band in devoting one evening each week to a concert, as well as appearing at our baseball games is most assuredly a move in the right direction. We only hope that it will continue and become a recognized college custom. If kept up, it might solve very satisfactorily the vexatious problem of bringing the student body together. That one outcome will be college singing follows logically. In fact the possibilities of such a movement are almost without limit.

THE career of the baseball team has been closely followed during the past few weeks, and we think there is general satisfaction with its progress. In defeating Middlebury our team succeeded in doing what older and larger colleges have failed to do, and in the Storrs game, the team proved its ability to run up a score. There are still however one or two noticeable faults. Our team is not so strong at the bat as could be desired, and it is still liable to spoil its chances for victory by costly errors in a single inning. The support of the students while somewhat improved is still unsat-

isfactory. The cheering at times is extremely poor. During the exciting finish of the Middlebury game, it was much better than usual. How large a part is played in rousing the team from their lethargy in that splendid rally in the ninth we cannot say. It is certain however that poor cheering disheartens rather than encourages. Let us have good cheering or none whatever.

A WORD respecting contributions to the LIFE is perhaps needed at this time. The following statement appears in each number: "Students and alumni are requested to contribute." This does not refer alone to a more or less vigorous contest during the winter term only for the position on the editorial board. It implies a responsibility on the part of the students for the welfare of this paper at all times. The AGGIE LIFE stands before the world not alone as the work of a particular board of editors but as the official representative of the students of this college. By it the literary standing of the college is mainly determined. just as in athletics the college is rated according to the success of its various teams. There can be no doubt that the maintaining of a strong second eleven for the past two years has done more to improve the rank of our football team than any other one factor; it is not too much to hope that a more extended support of the LIFE would yield correspondingly good results. There is however one rule which we shall have to insist on. In every case, the name of the writer must be known. If desired, it will in any case be withheld from publication. In this issue, we made an exception partly because there was no definite rule on the subject. The tendency in journalism seems to be however to disregard the anonymous letter; and this we shall be compelled to do in the future.

THERE is one college organization which once played a prominent part in our life which we think might well be revived. This is the tennis association. We have only to glance out on the courts on any pleasant day to realize that there is no lack of interest in tennis this spring. We cannot understand why the old association was allowed to fall through. So far as we could learn, the tournaments of the past were well participated in and the contest for the championship quite keen. There is apparently no reason why

a tournament this spring could not be equally successful. Certainly if one could be arranged to take place during Commencement week it would add much to the interest. In the past there has been no athletic event during our Commencement season and the result has been that the exercises have been rather more monotonous than might be desired. There seems little chance of arranging any other sort of contest, and if we are to enliven our Commencement it apparently must be by means of tennis. The movement, too, might very easily go further. Intercollegiate tennis was never more popular than now and we do not believe that it would be difficult to arrange a contest with some college of about equal rank. From this it would be comparatively easy to gain admission into the New England Intercollegiate Tennis association, the advantages of which are so apparent that no detailed mention is necessary. However, if anything of the kind is to be done this term, the movement must be started at once. The initial step is apparently as we have indicated the reorganization of the tennis association.

It will be remembered that in our last issue we referred to the question of changing the name of the college paper, and called for a general expression of opinion. The answer while perhaps all that we expected falls far short of what we could have desired. We publish in another column three communications received from the alumni, which represents to date the sum total of the response. We ask the students to give these letters careful consideration. They are representative, we think, of the great body of the alumni. They are from men who have lived their college life in these, our college grounds, and they are in a position to speak with authority of the traditions and sentiments of our Alma Mater. We believe also that in every case they are from men once serving upon this editorial board and so familiar with its problems. It behooves us to give close attention therefore to their views. The unanimity of their opinion is certainly suggestive. In one respect however we cannot agree with them. They declare that the entire body of the alumni would bitterly oppose any change in name. The scanty replies we have received would indicate rather that the alumni are rather indifferent than otherwise. However, it may be that many are

holding back their opinions and that we shall hear from them presently. The matter is still open for discussion and will so remain till May 27. Before that time we hope to hear from many. On the extent and character of the replies received will rest in large measure we believe the final decision of the student body. Therefore, "speak or forever hold your peace."

A SCHEME THAT FAILED.

"Hello, Sam!" shouted a voice as its owner poked his head out of a second story window, "Where are you going? I was just getting ready to come down to see you."

"O, hello, Conk! What are you doing up in there this time of night? Why, I thought you were up on the corner. What's the matter?"

"For heaven's sake shut that infernal trap of yours and come up here. I want to tell you something."

So in bolted Sam, a fellow not less than six feet three inches. A few of his giant strides brought him to George Conklin's room.

"What in the de——."

"Keep quiet," retorted George, as Sam was about to let out a lot of his lingo while viewing the things strewn around the room.

"Sit down there and don't mumble a word I am going to tell you. Well, I was up to Mabel's to-night and I excused myself as not feeling well in order to get away early."

"It was just this way. Mabel and I were sitting in the parlor and the door that opens into the little hallway was ajar so that I could easily hear any noise that might be made in the room just across. We hadn't sat there long before we heard voices in this room which sounded very much like John's and his old man's. They were talking in an undertone as if they didn't want any one to hear; but I heard them Sam," and here George's eyes sparkled with satisfaction as he brought his hand down so heavily upon Sam's shoulder that the blow made him wince. "They were talking about some fellows down on the 'Cliff' who had a fine little plan in view. As near as I could make out they had got wind of where old Capt. Kidd had buried his money on Tom Mott's Point and were going down there next Tuesday night."

"Now I have a scheme, Sam. You know next

week I have a vacation and you and I can take your boat and head these fellows off. What do you say? Shall we do it? Come now, say yes."

At this point George was greatly excited and moved around quite nervously. Sam, who, although ready and fool-hardy enough to enter into almost any plan, was rather sceptical concerning these hear-say things, but once he made up his mind to do a thing he would do it, come what might. He therefore shook his head at first but, seeming to catch the inspiration of the plan, he shouted, he would.

"But see here, Conk, you know my boat needs some repairs before I can get out with it, and besides that I partly promised Henry I would go with him Tuesday afternoon. Then I'll try to get around that. It'll be a big job to get the boat ready by Tuesday evening aside from trying to get off Monday night. That was a bad knock she got on that rock."

Then followed a long discussion on the work to be done and how to do it without everybody around quizzing them as to where they were going. Eleven o'clock came and Sam departed but still having a slight suspicion that somehow or other George might be mistaken about money being buried on this point.

All day, Monday and Tuesday, they applied themselves diligently to the work of getting the boat ready for the water. The damage was greater than they had anticipated and when Tuesday night came they were thoroughly tired. In the meantime several inquisitive people had poked their noses into the work and all sorts of stories were resorted to by the two fellows to cast off suspicion. Supper-time saw the boat in the water and Sam and George wended their way home with great satisfaction over their day's work. Eight o'clock came and the fellows were on their way to the point.

"Say George, what time did you say they would leave the 'Cliff'?"

"Not till quite late as they can get off from there any time. It doesn't matter about the tide down there."

"If this wind don't pick up a bit it will be morning before we get there; and what there is, is dead against us. It will soon be nine now and at this rate eleven will see us opposite the 'Cliff.' They will get there before we do."

"Supposing they do, we can hold our own."

Thus the conversation was kept up between the two fellows. All sorts of plans were made as to what they would do if they came across the other party on the beach. One hour passed and then another, and just as Sam predicted they were opposite the "Cliff." However, the wind was beginning to strengthen a little and one hour more would see them at the point;

George who had stretched himself out upon the deck had been almost lulled to sleep by the faint, trickling sound of the little waves as they patted against the side of the boat; but he was suddenly awakened by the flapping of the sail as Sam came about for another tack. He gazed listlessly toward the 'Cliff' where he had his attention attracted by a light moving back and forth.

"Say Sam, do you see that light over there?" "I'll bet it is those fellows getting ready to start. It sort a looks as though we had to do some tall hustling if we want to get there and hunt for the place before they come."

"That's right to. Give me about a half hour more with this breeze which we are beginning to get and I shall be there. You've got those shovels all ready, hey, Conk? It won't be long before we shall anchor. You know it won't do to anchor too near shore on account of the rocks."

A little while longer and they are ready to anchor.

"Look out for yourself there, I am going to bring her about. Over with the anchor; be quick!"

A strong throw, a splash, and the anchor is on the bottom.

"I will untie the row-boat while you get the shovels," said Sam to George quietly.

"Say Sam, that looks like a sail going north over there."

"It certainly does" answered Sam as he pulled for shore. "Keep a sharp look out ahead and I'll pull like the devil."

In a few minutes they are ashore.

"Go ahead George you know where the place is."

"As near as I could make out they said it was near a large boulder where everybody comes for camping and clam-bakes. There, that rock ahead looks like it; yes, it is."

"Come, there Conk, get a move on you; those fellows are making their last tack and five minutes

will see them in here. They are heading right this way by the looks of things. Lucky for us we left our boat on the other side of the point or they might give us some trouble."

"This looks like the spot Sam. Here, take this shovel and dig in there while I try it here," said George nervously and excitedly.

"Jingo, I can hear voices now," answered Sam as he began to shovel the sand with a quick, steady movement, while George was fumbling on the other side of the rock.

"Look, quick, they've anchored already. Haven't you struck anything yet? It begins to look as if it was all up with us."

"Yes and here they come in the row-boat. We had better hold up a minute or two or our noise may attract them. I thing they will land a little further up."

And sure enough they landed three or four hundred feet from the two treasure-seekers. For some reason part of the fellows returned to the sail-boat and the two thinking it best to take advantage of this fact began to dig with a will but as noiselessly as possible.

Suddenly Sam's shovel struck something hard which caused it to ring loud enough to be heard out to the boat. This attracted the attention of those on shore and they came creeping up to see what was going on.

"Golly, Conk, I've struck it. Come here and help get it out."

With the united efforts of the two they pulled out an old iron pot weighing as much as one could lift. Just then they were started by a hello from one of those who remained on shore and had crept upon them unawares. At the same moment the exclamation was answered from the sail-boat that they were coming as they thought the shout was for them.

"What do you want," answered Sam, angry as a hornet because they were discovered.

"Nothing," came the response. "We heard a noise and came over to see what was going on."

By this time the other fellows had landed near by guided by the talking. Soon Sam and George were surrounded by five fellows eager to learn what was up.

"I don't see what our doing here has got to do with you," growled George who was doing his best to hide the pot from sight.

"Don't get fresh there or we will give you a ducking," said one.

"Ho! ho! what's that?" shouted another as he caught a glimpse of the pot.

"Leave that alone," said Sam who made a grab for the treasure and tried to run. He was soon stopped when he began to show fight. But George whispered that it was all up with them and he had better quiet down.

"What! is that you, Sam?" shouted a familiar voice. "What in the name of Hanna are you doing down here?"

"Well, if that isn't Bert! Doing about the same thing as you I reckon."

"You tried to sneak off with your booty, didn't you? ha! ha! Come now, you will have to share up."

"Guess we will by the looks of things. Say, Conk, open it up and let's see what's in it. Here, some one hold that lantern so a fellow can see."

Slowly and carefully George began to pull off the bits of seaweed fastened in the top of the pot while the other fellows stood around with expectant faces. The seaweed off but no lid; then sand, sand, sand to the very bottom itself. With a dismayed, disappointed expression George arose and looked around him. They looked at one another for a moment in silence and then two or three unable to restrain any longer burst into a hearty laugh.

"That's the biggest joke yet" said one.

"Didn't I tell you so," came in another.

"That looks like the very pot that Henry Brooks took with him a few years ago when he came over here to camp out," said Bert after having examined the vessel. "I can tell because of this peculiar shaped hole in the rim. The whole thing is very plain. Hen camped out here and this pot having been left became filled with sand by the waves and tide."

D. N. W.

Wm. H. Murphy, Yale, '93. has been engaged as head coach for the Yale baseball team this spring. While at college he played four years on the Yale nine and has since played two years on the New York team of the National League. In 1898 he coached U. of P. nine. He will begin active coaching about May 1.

COMMUNICATIONS.

132 CENTRAL AVE., ALBANY, N. Y.

APRIL 27, 1901.

MR. H. L. KNIGHT, EDITOR-IN-CHIEF, AGGIE LIFE, AMHERST, MASS.

DEAR MR. KNIGHT:—I am much interested in having the name AGGIE LIFE retained for the college paper of the Massachusetts Agricultural College. I well remember when it was bestowed and you may rest assured that it was given only after considerable deliberation. It was not the favorite of anyone of the first board of editors, to whom the naming of the paper fell, but it was a combination of two proposed names after the elimination of a number of less desirable ones. The name adopted was the unanimous choice, after deliberation, of the first board of editors and though there were some misgivings on my part at first as to its being the best name, there are none now and I have watched the paper closely throughout its existence.

The name is short, easily remembered, includes the designation bestowed upon the college by many of her most loyal children and in the last word we have defined just what the paper is or should be—a reflection of the life and activities of the student body. It is true that a paper may have other functions but for a college paper, it seems to me, there could be no better name.

A word regarding the term "Aggie." My diploma, granted in 1891, purports to have been issued by the "Massachusetts Agricultural College" and the catalogue dated January 1901 is apparently issued by the same institution and it bears the same name as have earlier ones. It has always been my impression that the state college located at Amherst, Mass., was an *agricultural* college and that the term "Aggie," was simply a contraction of the most characteristic word in her name and when I hear a man say "Aggie," I feel that he loves the college which gave me such a life along the way of learning. In my opinion, the name "Aggie" is too deeply fixed in the minds of the older men to be ever forgotten and even though the institution may hold a broader conception of what may properly be taught in an agricultural college than it did in my day, a change of the popular name is ill-advised and it should not attempt to modify the official designation of the institution—a name bestowed by

the General Court of Massachusetts and one which should not be set aside lightly by either students, alumni or faculty.

Yours truly,
E. P. FELT, M. A. C. '91.

EAST POINT, GEORGIA,
APRIL 26, 1901.

MR. H. L. KNIGHT, EDITOR-IN-CHIEF, AGGIE LIFE.

DEAR SIR :—I am emphatically in favor of retaining the present name of the college paper, AGGIE LIFE. The name "Aggie" should in no way cause shame to a son of the institution. The name is a popular and time-honored one, particularly endeared to alumni I fear a substitution would prove injurious to the college and believe an immense majority of the alumni would cry out against it.

Very truly yours,
ELIAS D. WHITE, M. A. C., '94.

48 FT. GREEN PLACE,
BROOKLYN, N. Y., APRIL 25, 1901.

EDITOR-IN-CHIEF, AGGIE LIFE, AMHERST, MASS.

DEAR SIR :—Your issue of April 24 asks for a general expression of opinion among the alumni regarding the name of the college paper. The article also intimates that the majority both in the student body and in the faculty would favor changing the name in the hope of eliminating the word "Aggie" from such an intimate connection with the institution as it now occupies.

In my opinion the AGGIE LIFE can stand on its merits name and all. Since the paper first began to be published regularly it has gone through some dark days, like a good many other enterprises, but it has succeeded in overcoming all the threatening obstacles and to-day compares very favorably with similar publications of older and larger institutions.

But just a word about the expression "Aggie." It must be about as old as the college itself. The alumni remember and speak of the college as old "Aggie" but the word "Aggie" doesn't call to their minds fields of grain or onions or cabbages. To the alumni the word "Aggie" is an endearing term for their Alma Mater and to them the sentiment that has made the expression so natural is too strong to allow its irreverent dismissal.

Very truly yours,
GEO. H. WRIGHT, '98. M. A. C.

EDITOR-IN-CHIEF, AGGIE LIFE.

DEAR SIR :—Permit me, through the columns of your paper, to set before the students of this institution, the fact that our Campus is becoming a general play-ground for numerous boys from town. Not only on our Campus do we see them, but all over the beautiful lawns surrounding our college.

During the spring days of this term the fact has been prominently brought before me as it has to many others and I hope that something may be done to rid our beautiful grounds of what is soon to become a nuisance.

A STUDENT.

CHEMICAL CLUB.

The final meeting of the Chemical Club for the year 1901 was held Monday evening, May 6 in the Chemical lecture room. A large number were present. The speaker of the evening was Dr. C. A. Goessmann who spoke very interestingly on "Then and Now in Germany." Dr. Goessmann compared the Germany which he left fifty years ago with that which he found on his recent visit, treating especially of the remarkable progress which has been made along agricultural and experimental lines. At the close of the lecture refreshments were served.

RECEPTION.

The second reception given by the ladies of the faculty was held in the chapel Friday evening, April 26, and was a brilliant success. A large number of the students availed themselves of the opportunity to meet young ladies from Smith college, Amherst and adjoining towns. Thanks to the decorating committee the chapel presented a very pleasing appearance. After a social hour a musical program consisting of the following numbers was well rendered :

Solo,	Mr. Raymoth
Duet,	Mrs. Paige and Mrs. Burnett
Organ solo,	Miss Maynard
Solo,	Mr. Allen
Solo,	Mrs. Burnett
Double Quartette,	College

After the reception special cars waited at the walk. Many thanks are due to the ladies of the faculty and the various committees.

College Notes.

—S. B. Haskell, 1904 has left college.

—G. E. O'Hearn, 1903 is back at college.

—C. A. Tinker, 1903 is again attending recitations with his class.

—The Seniors planted their class tree on the night of May 4—Arbor day.

—R. A. Quigley, 1904 has gone home for the remainder of the term.

—Rev. J. W. Day of Amherst spoke in the chapel Tuesday evening the 28th.

—The reception given by the ladies of the Faculty on the 26th was a great success.

—Prof. Maynard lectured in Hadley the 23rd, his subject being "Roads and Roadside Improvements."

—Mr. Gilbert of Yale Univ. recently addressed the Y. M. C. A. on the "Volunteer movement of Our Student Body."

—The following men have charge of the Senior Prom.: Whitman, chairman; Brooks, Todd, Wilson, Leslie, Gamwell.

—Prof. Herman Babson has a very interesting article in the *Outlook* for May, entitled "Justin S. Morrill and Popular Education."

—Prof. Emerson of Amherst College recently gave the Sophomores a field lecture on the formation of soil as found on the college farm.

—The preliminary speaking before the Faculty of the Sophomore and Freshmen tens will take place in the chapel, May 24 at 2 P. M. All are invited.

—The band has received an appropriation of \$50, with which they will purchase new music pouches and band caps. Gilbert, 1904 has entered the band.

—The Flint Six who will represent the Junior class on the commencement stage are: A. L. Dacy, J. C. Hall, H. L. Knight, C. I. Lewis, R. W. Morse, D. N. West.

—The classes of 1902 and 1903 held a joint meeting and elected the following men to serve on the Senate for the coming year 1902: L. C. Claflin, V. A. Gates, H. L. Knight, R. W. Morse. 1903: H. J. Franklin, C. P. Halligan, R. H. Robertson, E. B. Snell.

—The sixty-second annual meeting of the Springfield Zoölogical club was held in the Science Lecture Hall of the Springfield High School on Friday afternoon May 3. Prof. H. T. Fernald of our college lectured on "How Animals See."

—The college band gave a concert on the campus last Wednesday evening which was enjoyed by all. This is the first of a series which the band will give, one each week for the remainder of the term. They played selections from Wagner, Durand, Sutton, Hendon, Ripley.

—The college was somewhat surprised one morning a few days ago to find the entire equipage of the Military Recitation room on the island in the pond. Everything was in good order and if any means of transportation were visible, one would suppose that the English department intended holding their recitation in this delightful spot.

—The Senior commencement speakers are: Clarence E. Gordon, Nathan J. Hunting, Edward S. Gamwell, James H. Chickering, Ernest L. Macomber and Alexander C. Wilson. The class appointments: Ivy poet, C. E. Gordon; Class orator, J. C. Barry; Class poet, C. L. Rice; Campus orator, P. C. Brooks; Pipe orator, N. D. Whitman; Hatchet orator, J. H. Todd.

—The freshman ten who will speak before the Faculty, May 24th, at 2 P. M. are: P. H. Bowler, F. D. Couden, John Cummings, J. W. Gregg, C. H. Griffin, C. W. Kirby, C. W. Lewis, H. Martin, S. R. Parker, R. R. Raymoth. The Sophomore eight are: H. J. Franklin, Albert Parsons, W. W. Peebles, E. W. Poole, E. G. Proulx, W. E. Tottingham, F. W. Webster, M. H. West.

—The Senior "Polycons" defeated the "Botanists" in a game of base ball last week. Score 11-7. The line up was:

Polycons,		Botanists
Barry,	p.,	Pierson
Henry,	c.,	Chickering
Rice,	1st b.,	Gamwell
Todd,	2nd,	Macomber
Cooke,	3rd,	Jones
Whitman,	shot,	Dickerman
Hunting	r. field,	Dawson-Brooks
Casey,	c. f.,	Leslie
Root-Bridgforth,	l. f.,	Smith

Athletic Notes.

“AGGIE” 11; CONNECTICUT A. C. 6.

The first home game of the season was played with the Connecticut Agricultural College on the Campus Saturday May 4th. The game was loosely played both teams making a number of errors.

The Connecticut team started in well making three runs in the first two innings and it looked for a while as if “Aggie” wouldn’t be in it. In the third inning the Aggie’s took a brace scoring three runs and tying the score. In the eight inning the Connecticut team by bunching their hits made two more runs while “Aggie” scored almost at will winning the game by a score of 11 to 5.

The features of the game were the home run by O’Hearn in the third inning with two men on bases thus tying the score and the base running of Bowler who stole second and third and finally home base. Mouarty and Blakeslee played best game for Connecticut while Cummings and Cook excelled for Aggie.

M. A. C.					
	A.B.	B.	P.O.	A.	E.
O’Hearn, 2.,	5	2	3	1	3
Paul, s.,	4	0	1	5	1
Bowler, r.p.,	4	1	0	2	0
Gregg, 3.,	4	0	1	0	0
Bodfish, r.p.,	4	1	0	3	1
Graves, m.,	3	2	2	0	1
Harris, l.,	4	0	0	0	b
Cummings, 1.,	3	3	9	0	0
Cook, c.,	3	0	11	2	2
Total	39	9	27	11	7
C. S. C.					
	A.B.	B.	P.O.	A.	E.
Mouarty 3.,	5	1	3	1	0
Blakeslee, 2.,	5	1	1	5	1
Harvey, c.,	5	1	7	1	1
Clark, l.,	5	1	11	0	1
Downing, 3.,	3	1	1	0	2
Mcdean, p.3.,	3	0	10	3	0
Pratt, r.,	4	1	0	0	0
Lawson, m.,	4	1	1	0	2
Karr, l.,	4	2	0	0	0
Total	39	8	24	11	6
M. A. C.	0	0	3	2	1
C. A. C.	1	2	0	0	0
Runs—O’Hearn 2, Paul,Bowler, Graves 3, Cummings 3, Cook 2, Harvey, Pratt, Lawson, Carr 2. Stolen bases—Paul, Bowler 3, Gregg, Graves, Cummings 2,Cook,Harvey,Clark,Karr. Two base hit—Graves. Home run—O’Hearn—Base on balls off Bodfish 5, off McSears 3,off Mouarty 2. Struck out—by Bodfish 8, by Bowler 2 by McSears 3 by Mouarty 4. Double play—Clark unassisted. Umpire—George Merritt.					

“AGGIE” 4; MIDDLEBURY 3.

On Thursday, May 9, “Aggie” defeated Middlebury College on the campus by a score of 4 to 3. Middlebury was unable to score until the seventh inning. The game was a pitcher’s battle from the start with Bodfish having a little the best of it striking out ten

men and allowing five hits while Drake struck out eight men and allowed six hits.

Aggie opened the game well by scoring one run in the first inning and one in the fourth and not allowing Middlebury to score until the seventh inning when they made one run. In the eighth inning Middlebury made two more runs making the score three to two. Wilds gets first on a hit and and is advanced to second by Barley who is thrown out at first. Stearns hits to Bodfish who throws wild to first allowing Wilds to score and Stearns to reach third. On a hit by McCuen Stearns reached home making the score three to two. After the fourth inning Aggie did not score again until the ninth inning when by a brace of hits and errors they made two runs. Cummings hits safe. Harris knocks a fly to the first baseman who muffs it allowing Cummings to reach second and Harris first. On a hit by Bodfish Cummings scores and Harris reaches third. Paul knocks a fly to Simonds who fields it but is unable to prevent Harris from scoring thus making the score four to three in Aggie’s favor. Only one out when the winning run was made. Drake and McCuen played best game for Middlebury while Bodfish, Ahearn and Cook excelled for Aggie.

M. A. C.					
	A.B.	B.	P.O.	A.	E.
Paul, s.,	4	2	2	2	2
O’Hearn, 2., 3.,	4	1	2	3	0
Cook, c.,	3	0	11	1	0
Graves, m.,	3	1	1	0	0
Bowler, r.f.,	4	0	0	0	0
Ahearn, 2.,	3	0	3	2	0
Cummings, 1.,	4	1	8	0	0
Harris, l.,	4	0	0	0	0
Bodfish, p.,	3	1	0	3	1
Gregg, 3.,	1	0	1	0	0
Total	33	6	27	11	3
MIDDLEBURY.					
	A.B.	B.	P.O.	A.	E.
Barly,	3	1	3	0	1
Stearns,	4	0	3	0	1
McCuen,	4	1	9	3	0
Drake,	4	1	0	4	0
Lester,	4	1	0	0	0
Stafford,	3	0	0	0	1
Wethwell,	2	0	0	0	0
Hughes,	4	0	0	2	2
Wilds,	4	1	8	1	1
Simonds,	2	0	2	0	1
Total	34	5	25	10	7
M. A. C.	1	0	0	1	0
Middlebury	0	0	0	0	1
Runs—O’Hearn,Graves, Cummings, Macomber, Stearns, McCuen, Wilds. Sacrifice hits—Stearns, Bowler. Stolen bases—Graves 2,O’Hearn Paul, Lester, McCuen. Three base hit—Drake. First base on balls—off Bodfish 2, off Drake 3. Struck out—by Bodfish 10, by Drake 8. Batter hit.—Graves. Pass balls—McCuen 2. Time—2h. Umpire—George Merritt.					

Swarthmore college “Phoenix” published with their last issue a supplement engraving of the editors and staff of eleven, two of which are young ladies.

Alumni.

'72.—John C. Cutter, 72-7 Gates St., Worcester, Mass.
 '72.—Chas. O. Flagg, Kingston, R. I.
 '72.—E. D. Shaw, Holyoke, Mass.
 '74.—G. H. Babbitt, 340 Grove St., Chickopee, Falls, Mass.
 '75.—Walter N. Knapp, Newtonville, Mass.
 '79.—Harry Bond, 424 Norwood Ave., Buffalo, N. Y.
 '76.—G. A. Parker, box 553, Hartford, Conn.
 '76.—Cyrus Taft, Whitinsville, Mass.
 '78.—C. E. Lyman, Middlefield, Conn.
 '78.—Guy Morey, Lowell, Mass.
 '79.—Geo. C. Smith, Sunderland, Mass.
 '82.—Geo. T. Alpin, East Putney, Vt.
 '82.—F. E. Chipman, 15 1-2 Beacon St., Boston.
 '82.—S. J. Holmes, 188 Park St., Montclair, N. J.
 '82.—S. C. Damon, Lancaster, Mass.
 '82.—Robert A. Eschran, Cotton Manufacturer at Marysville, Ky.
 '82.—Walter H. Thurston, died of pneumonia, Aug. 25, 1900, at Cape Nome.
 '83.—H. J. Wheeler, Kingston, R. I.
 '83.—D. O. Nourse, Blacksburg, Va.
 '85.—Chas. S. Cutter, 151 Summer St., Arlington, Mass.
 '87.—H. L. Brown, Peabody, Mass.
 '87.—A. W. Paine, Medford, Mass.
 '88.—R. B. Moore, 324 1-2 Franklin St., Elizabeth, N. J.
 '88.—J. E. Holt, Andover, Mass.
 '89.—A. D. Copeland, Copeland St., Campello, Mass.
 '89.—James R. Blair, 158 Massachusetts Ave., Cambridge, Mass.
 '90.—H. L. Russell, Pawtucket, R. I.
 '90.—F. W. Mossman, Westminster, Mass.
 '91.—W. C. Paige, Y. M. C. A. Secretary at Henderson, Ky., has accepted a call to the Louisville association, and will enter upon his duties on July 1st.

'91.—H. T. Shores, Northampton, Mass.
 '91.—W. H. Pond, N. Attleboro, Mass.
 '91.—M. A. Carpenter, Park Road, Mt. Auburn, Mass.
 '91.—H. M. Howard, West Newton, Mass.
 '92.—C. S. Graham, Westboro, Mass.
 '92.—Elliot Rogers, Kennebunk, Me.
 '93.—H. D. Clark, Fitchburg, Mass.
 '93.—A. Edward Melendy, 117 West Boylston St., Worcester, Mass.
 '94.—I. C. Green, box 703, Leominster, Mass.
 '94.—George H. Mervin, route 33, Southford Ct.
 '94.—E. D. White, messenger on the Central Georgia R. R., has lately been the victim of a bold hold-up. He was bound and gagged by the robbers, who after securing about \$350, left the train at Gordon. Mr. White was found soon afterwards by the conductor and was released. He was uninjured.
 '94.—J. E. Gifford, Sutton, Mass.
 '94.—Arthur H. Cutter, Shawmut Ave., Boston.
 '94.—T. S. Bacon, 6 Maple St., Springfield, Mass.
 '94.—T. Fayette Keith, 304 Main St., Fitchburg, Mass.
 '94.—Arthur A. Cutter, Surgeon Interne, Paleism, (Paleism, N. Y.) General Hospital.
 '95.—We are pleased to announce the marriage of Mr. Waldo L. Bemis and Miss Etta A. Josselyn. They will reside at Grove St., Spencer, Conn.
 '96.—Salome Sastre is reported to be doing a prosperous business at his plantation at Santa Rosalie, Mexico.
 '96.—H. T. Edwards lately sailed for the Philippines, where he expects to enter the hemp business. Communications may be sent in care of Capt. Oliver Edwards, A. D. C., Custom House, Manila.
 '98.—A. D. Adjimian has opened a chemical laboratory in Harpoot, Turkey.
 '00.—F. G. Stanley was recently married to Miss Bertha I. Roberts, at the home of the bride's mother, in Springfield.

An Association building fund of more than \$7,000 was raised in less than a week recently at the University of Oregon.

Department Notes.

LIBRARY.

"*Morphology of Spermatophytes*," by John M. Coulter, Ph. D., head of the department of Botany in the University of Chicago, and Charles J. Chamberlain, Ph. D., instructor in Botany in the University of Chicago. This book is intended to prepare the student for research in the morphology of seed-plants. It brings together and organizes the very voluminous and scattered literature of the subject, points out and discusses the problems, seeks to unify a very confusing terminology, and at the same time contributes no small amount of original observation and illustration. Following the presentation of the separate great groups, their comparative morphology, history, and phylogeny are discussed. At the end of each chapter, which discusses a great group, a list of the works cited is given. The book contains a large number of illustrations and is neatly printed on a good grade of paper.

"*Animal Life*," a first book on Zoölogy, by David Starr Jordan, Ph. D., LL. D., president of Leland Stanford Junior University, and Vernon L. Kellogg, M. S., professor in Leland Stanford Junior University. An elementary account of animal ecology,—the relations of animals to their surroundings and of the responsive adopting or fitting of the life of animals to these surroundings. The book treats of animals from the point of view of the observer and student of animal life, who wishes to know why animals are in structure and habits as they are. It is extensively illustrated and well printed with good clear-cut type.

"*Garden-Making*," suggestions for the utilization of home grounds, by L. H. Bailey, aided by L. R. Taft, professor of Horticulture in the Agricultural College of Michigan; F. A. Waugh, professor of Horticulture in the University of Vermont; and Ernest Walker, assistant in Horticulture and Entomology in Clemson College, South Carolina. L. R. Taft is a graduate of the M. A. C. of the class of '82, and acted as assistant to Professor Maynard during the year 1883. The book gives general advice on the preparation of the land, sowing and planting, forcing of plants, insects and diseases, and enriching the land. A section is given to the picture in the landscape, and contains

a sketch of what a picture is and how it may be obtained, contrasts massed and scattered plantings, discusses flower-beds, borders, types of bushes for lawn effects. Other sections discuss the fruit plantation, and the vegetable garden. This is the fourth edition of the book, and it has been thoroughly revised. It is a valuable volume for any one interested in garden-making, and contains many illustrations.

"*The Principles of Mechanics*," an elementary exposition for students of Physics, by Frederick Slate, professor of Physics in the University of California. This is a text book for a junior grade class, who have brought to their task a working knowledge of calculus, and a good groundwork of experimental physics. The complete work is divided into two volumes, only number one of which is in the library.

"*Botany*," an elementary text book for beginners, by L. H. Bailey. This volume is the best of its kind ever published. It is a revised edition and far superior to the old publication. It takes up structure and classification, and is well illustrated.

HORTICULTURE.

At this season of the year, when nature is covering everything within its reach with a fresh robe of green, relieving the dreary landscape of the winter months, the beauties presented to our view are more fully appreciated. The plant-house grounds are putting on their best appearance, and is now the most attractive spot to be seen in this vicinity. It has been stated by a good authority that our grounds contain the best collection of trees and shrubs in the state. The magnolia blossoms have appeared in unusually large numbers and are perhaps the most conspicuous. Numerous other shrubs and flowers are blossoming out every day, increasing the brilliancy of the picture.

Mr. Burbank, of California, has given the College a number of Japanese plum trees, and they are now being set out in the orchards. There has also been a large number of American plum trees added to the Clark orchard.

The blossoms on the plum and peach trees give evidence of an unusually large crop. The trees make a pretty sight at this time of the year, the branches and trunks being almost completely hidden from view by the flowers.

THE CLOUD SEAS OF HOLYOKE.

[From my note book.]

"Five A. M., August third. Opened South window. Wonderful! A Second Deluge! The Peaks of Tom and Holyoke still visible. The sea stretches far away to the distant hills. It rises. Beyond Holyoke the rolling waves lash themselves into a perfect fury, and toss the spray high in the air. Only the tips of the hills to be seen. This side the range a torrent rushes roaring and raging over the half hidden rocks, dashing out into the great sea between Tom and Holyoke. It changes. The water deepens, and the huge waves beaten by the tempest chase each other in their Titanic playfulness. Now they rush with lightning speed and with tremendous force dash against the hill tops sending a cloud of foam above, with the spray dancing in the sun.

But see, the waters halt! They rise no higher. Its fury quelled, the sea grows calm. Its waters sink. They vanish into mist. They are gone. The sun, once more, shines upon the darkened hills and breaks the cloud with his mighty power. It is a "cloud sea."

The pen is feeble and the thoughts are few. Oh! that I had the power to describe its beauty, that I could paint upon the mind a picture of the scene. But though "the spirit is willing the flesh is weak."

This cloud sea, one of nature's wonders, is to be seen only in the early morning at sunrise or shortly after. Resting on the hills, at sunrise, during the months of July and August, the clouds assume this peculiar and interesting form. And those who are awake with the birds feel themselves amply repaid for their early rising. The mist is dispersed about eight o'clock and then the phenomenon fades away. But description is beggarly only a sight can realize its beauty. R.

Exchanges.

For the purpose of bringing more clearly before the attention of the public the remarkable educational advantages offered at low cost by the Massachusetts Agricultural College, our illustrated issue of April 10, has been further revised and adorned with a handsome cover design.

A considerable edition has been reprinted which we desire to distribute as widely as possible among the

preparatory schools of the country. Will our exchanges kindly help in the work by inserting the following notice:

OF INTEREST TO STUDENTS.

Those who are contemplating a college education will do well to write for a copy of a Special Edition of AGGIE LIFE the paper published by the students of the Massachusetts Agricultural College. It is an attractive pamphlet of twenty-four pages, handsomely illustrated with engravings of the college buildings and typical college scenes, and contains a variety of information directly from the instructors concerning their work, a classified list of the faculty, a statement of requirements for admission and of expenses, which for the individual are very low, tuition being free. Its purpose is stated to be, to bring more clearly before the attention of the public the educational advantages of the State College of Massachusetts. The number of copies is limited but, until exhausted, one will be sent free of charge to any address furnished the Alumni Advertising Committee, Amherst, Mass.

The Harrisburg High School *Argus* is a witty and exceptionally entertaining paper.

Captain, to awkward squad; "When I say halt! put the foot that's on the ground beside the foot that's in the air and remain motionless."

Cushing academy "*Breeze*" contains a well written and very interesting article on Mt. Holyoke college.

The University of Chicago is to have a new club house for the use of students. The building will cost about \$20,000.

H. Ward, Harvard 1900, won the indoor tennis championship of America at a tournament held recently in New York.

The business manager desires this little verse inserted in this column:

The wind bloweth,

The water floweth,

The subscriber oweth,

And the Lord knoweth

We are in need of our dues.—Ex.

He kissed her dainty little hand,

She let it passive lie,

But with her left she made a swing.

And biffed him in the eye.—Ex.

Little grains of powder,
 Little drops of paint,
 Make a lady's freckles
 Look as though they ain't.—Ex.

The C. A. C. *Lookout* contains an excellent article entitled, "The Art of Correct Spelling."

The past two weeks have brought in about thirty-five exchanges. They vary from high school papers to the more pretentious volumes, such as those edited by M. I. T. and Holy Cross. They furnish us with news of the doings at other colleges and schools which can be got at in no other way. Some of the high schools are doing excellent work in a literary way, although there is a marked difference in the editorial department between the several papers on our exchange table.

A dispute has arisen: Are there four, or five dogs on the cover of the Latin School *Register*?

The *Stylus* of Boston College is an especially well-bound and well-gotten up volume.

The *Intercollegian* prints some very good illustrations in the April number.

The *Epsilon* of the Bridgeport High School is a business-like paper, and has a very artistic cover.

The *Comus* for March shows good ability in its neatness and condensed articles of interest.

The *Tech* is a good model for all editors to follow.

The *Tripod* of Roxbury Latin School contains an excellent series of questions on Shakespeare. We would suggest that a date be printed in some prominent place for obvious reasons.

Intercollegiate.

"Lounger" in the *Tech* gives a very witty review of the theatricals.

Amherst college track is being recovered with cinders and loam.

Princeton is planning for a new gymnasium which will cost about \$150,000.

The University of Pennsylvania has received invitations for a dual track meet from both Cornell and Columbia. As May 11 is Pennsylvania's only open date a triangular meet may be arranged.

At the suggestion of President Patton, Princeton will very likely adopt the elective system in sophomore year and confer the degree of Bachelor of Arts in three years upon those who have completed the equivalent of the present four years' course.

Harvard lost the intercollegiate fencing championship in New York Saturday, April 6, for the second time in nine years. As Yale could not get a complete team together, only Harvard, Columbia, Annapolis and Cornell took part.

The *Literary Digest* learns through replies from 19 college magazines that college faculties have nowadays almost nothing to do with the conduct of college journalism, and the process of filling staff positions through election by the editorial board after various competitive tests seems well-nigh universal. Of these 19 college papers only two, the *University of Pennsylvania Red and Blue* and the *Wesleyan Literary Magazine* consult the faculty in filling their editorial chairs. The method of competition by the University of *Chicago Weekly* is the most stringent. Appointments are made on the basis of merit, as shown in six months' competition among the reporters, to which position any student is eligible. Twice each year, in June and September, a valuation is made of the amount and quality of work done by each reporter and each editor. The seven whose work is the most satisfactory become the editorial board for the ensuing six months, and the others are given places on the waiting list. The decision rests with a merit board made up of the managing and assistant managing editors and a member of the English faculty of the university.

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Editorials.

THE handbook published annually by Y. M. C. A. is again before us for notice. Its form has been altered in some respects, and in addition to the usual material a good deal of general information has also been added. The cover is unique, bearing simply the letter "M" in gilt on a maroon field. Several new devices are noticeable to increase its usefulness to the student. We are particularly glad to see that the inaccuracies and mistakes which have marred the handbook in late years have been removed, and the book thoroughly revised and brought up to date. We congratulate the handbook committee on its painstaking work.

WE are glad to note the continued good work of our baseball team. In spite of various accidents and pieces of ill-luck it bids fair to make for itself a most creditable record. In the Maine and Vermont games it again proved its ability to play winning ball, while in the first defeat of the season, by Trinity, it made a

showing entirely creditable to the college. The home schedule is now completed and the hardest trip of the season is now before the team. Complete success under such circumstances ought not to be expected. There is no doubt however that the team now commands the confidence of every student, and we may feel sure that this confidence will be justified for the remainder of the season.

THE address of Senator Gardner to the battalion at the annual inspection of the college by the Legislative committees, which will be found somewhat imperfectly reported in another column, must be regarded as extremely significant. Himself a graduate of a distant college, Senator Gardner was able to speak to us in an unprejudiced way, and his views must be considered as representative of a great body of people in this state who would be but too glad to befriend this college were its true character made known to them. The argument he made for a change of name of the college is a strong one, and receives the hearty endorsement of the student body. The present title

is undoubtedly misleading. It will be asked, "But is not the college primarily an *agricultural* college?" We answer "Yes," to the extent that those persons desiring an agricultural training have the best of opportunities for obtaining it; we answer "No," because less than twenty-five per cent. as shown by the choice of senior electives care for the agricultural features of the course. The remaining seventy-five per cent. are enrolled *in spite of the name* because they know that exceptional opportunities are offered along various scientific lines. How large a number have been kept away is uncertain; there can be no doubt however that the name has above all things handicapped the college from the very beginning. When an institution has existed thirty years without a perceptible increase of students over the original enrollment something is radically wrong. The first class entering this college numbered 46; the last class numbered 38. During the same time, other state institutions such as Pennsylvania State, Cornell, and the Mass. Institute of Technology have risen from the same small beginning as ourselves to a recognized standing in the collegiate world. We believe that Senator Gardner was right; that in no other way can the college hope for the truest prosperity; and that those now in authority who are barring the way of progress must bear the responsibility for the shortcomings of the institution. On behalf of the student body, we desire to thank Senator Gardner for his advocacy of a measure so vital to the best interests of the State College of Massachusetts.

We publish in another column more or less completely the remainder of the letters received from the alumni on the question of changing the name of the college. We may say that in addition brief statements were also received from several alumni concurring in the view that a change would be inadvisable. On May 27th, as had been previously announced, the editorial board met and considered the question in detail. In view of the strength and unanimity of the protests from the alumni, men of age and experience, whose opinions we felt bound to respect, it did not seem wise to oppose their wishes. Accordingly, by a unanimous vote the question was indefinitely postponed. We fear that this action will prove a disappointment to the student body, whose desires were

undoubtedly in favor of a change. To them we would say that the policy of any journal of this sort must be in large measure determined by its subscribers. We did not therefore feel justified in making an innovation so evidently opposed by a majority. That the name will be changed eventually we do not doubt; but the outcome of the discussion is that it must not precede a change in the name of the College. We desire to thank the alumni for the interest they have shown in the matter; after the response they have given they cannot be justly charged with indifference. It might be said however that as the student body has yielded out of deference to the alumni, they have a right to expect an equal consideration from the alumni on the points which touch them most deeply. On the whole while the matter has apparently been left where it was before we are not sorry that it was brought up for discussion since it may lead to a closer bond of union between the students and the alumni. After all, their interests are the same, and there should be no friction. Perhaps one or two statements ought to be made to clear up some false impressions some of the alumni seemed to have obtained. In the first place, there was never any thought that we were ashamed of the term "Aggie." Neither does the student body desire to see agriculture and its allies dropped from our curriculum. The students respect the Senior electing Agriculture just as highly as the one who chooses, let us say, Mathematics or English. But they do contend, and we think rightly, that no one branch should be exalted above another, and they claim that no one study, especially one in which seventy-five per cent. care nothing about, should be taken as typical of the work of an entire institution. Let the courses in agriculture be improved and extended to the fullest degree and every student will rejoice. But let them be made elective. Provide other courses for which there is a demand and let the students choose those which they desire. Many of our alumni also seem to feel that we have acted too hastily. It may be of interest to some of these to learn that the movement to change the name of the paper did not originate either with the board or even with the student body, but with a committee of the alumni themselves. This committee was organized for advertising purposes and decided to use as a medium the AGGIE LIFE. They felt that in view of

the misleading nature of the word "Aggie" a change in the title would be desirable. It was not that "Aggie" was misleading to the alumni or the student body, but to the prospective student. Accordingly the committee laid the matter last term before the outgoing board of editors. This board delayed action and the problem was transmitted to the incoming board. It was our duty to consider it and we did so. We took a test vote of the student body and it proved favorable to a change. We then laid the matter before the alumni, and allowed a month for discussion. At the end of the time we found that the objections were too numerous, and so laid the matter upon the table. The board never recommended a change, and was not particularly desirous of it. Perhaps we were hasty; but considering that the board had ample power to change the name once and for all without any notice whatever, we think there is some reason to doubt it. However, be that as it may, the question is now settled, at least for a time. It remains only for all to abide by the decision.

CONFIDENCE SUSTAINED.

"No, John," said Mr. Foster decisively, "I do not care to discuss this matter further. You have made a mistake and I don't want you to let such a thing happen again."

"Very well, sir," returned John carefully restraining the words of defiance that were about to leap from his mouth. "It will be as you see fit." And with a formal bow he left the room.

John Trenton was a protégé of Mr. James I. Foster, a wealthy New York land-owner. Through the death of his wife and only child many years previous Mr. Foster had become afflicted with a feeling of loneliness which gave rise to a desire to benefit others. About six months before, he had succeeded in rescuing John Trenton from a drunkard's grave. One bitter cold night he had found him unconscious in an alley not far from his home. A good warm bed and ten hours of sleep put the unfortunate on his feet again, and partly out of gratitude towards Mr. Foster, partly from a sudden whim of his own, John Trenton determined to turn over a new leaf and start life afresh.

Mr. Foster very naturally thought that as resolutions are easily made and broken, Trenton might err from his new course of life and return to his dissipations of

the past. But in this, he showed himself totally unacquainted with John's character. In fact, as he came to know him better, the wealthy land-owner began to wonder how a man of such determined will could ever have taken to drink. As Mr. Foster continued to find out every day, when John made up his mind on a certain course to pursue, no power on earth, short of death itself, could swerve him from it.

* * * * *

On that particular morning, John closed the office door firmly and without losing his temper, but there was rage in his heart. It was such a trifling thing for Mr. Foster to take exception to. John had recommended that a certain mortgage be allowed to run on, where Mr. Foster wished it foreclosed. Although it was not Trenton's place to dictate to his employer, he had urged the matter so strongly that the wealthy real estate owner closed the matter without further argument.

"Confound the old fool," muttered John as he slipped on his hat and coat. Cursing the world in general and his employer in particular, he soon found his way down town and towards some of his old haunts on the Bowery. He strolled along, deep in thought, scarcely noticing the familiar locality into which his steps were unconsciously carrying him. Suddenly a hand was laid on his shoulder and a hoarse voice shouted in his ear.

"By all that's powerful! If it ain't Whiskered Andy! Why me boy, I thought you were dead. And you look slick as an alderman, or a drummer, or a hotel manager. An' yer dressed fine too. Wher've you been? Klondyke? You've got the cut of the governor of the state and the air of a millionaire's son. Give us a tip on what it all means."

"What the devil do you want of me, Jim Rogers," exclaimed John as soon as he got a chance, turning angrily on his questioner.

"Well, now you act as if you weren't a bit glad to see me. An' we used to be such good friends. Come in here and have something, jest so we can talk over old times."

"I've given up drinking," returned John slowly, "But I don't mind setting you up. I've left off the old life for good, though my old friends still remain."

They crossed the street to a cheap hotel, ordered a private room, and Jim Rogers was soon indulging in

his favorite beverage. John Trenton merely smoked a cigar.

Jim was apparently not in the best of circumstances—a quarter inch growth of beard, a bloated face, a broken derby hat, and a tattered coat were evidences of his financial condition.

"It seems mighty strange yer don't join me," he began, as he supped his whiskey and water. "What yer doin' now-a-days?"

John told him in as few words as possible of his history up to date, ending with his little difference with Mr. Foster. Jim seemed to take this latter incident very much to heart.

"Course he was wrong. I'd back you any day, for knowing more about mortgages than him. An' be you a goin' to stand an' let a man walk over you like that? 'Tain't like you Andy? Ain't ye goin' ter touch him up fer a few thousand? You know the place as you've worked in the office. We can fix up a check or blow up the safe. I'll bet that's what you come hunting me up for."

His companion's fervor was not infused into John Trenton. He calmly surveyed Jim Rogers' bloated face. His eye glistened.

"You need not excite yourself by a false hope. I told you distinctly that I had given up my past life. You decidedly overlook the fact that I did not come here in quest of you."

"Oh! That sounds cool and high flown for you, but it don't wash with me. Do you remember the Ashton Bank Robbery. The police are looking for a man named Whiskered Andy for that job. Same with the Wilkinson diamond deal, an' that forged check of young Haswell's. Look here Mr. Whiskered Andy, I've got enough proof here to give you thirty years. Come now, will you do your end of the job?"

"You can't bluff me Jim Rogers. You can't shake my determination. The police want me I know, but they also want you."

"That's true, Andy, but I'm goin' to visit that safe up to Foster's house that you told me of. You can help me or not, but if you try to put anyone onto me, it will be all up with you for twenty years even if I have to keep you company."

John gave Rogers a warning not to try and left the room.

* * * * *

About an hour and a half after midnight a week latter, Mr. Foster's residence was the scene of a very interesting and exciting pantomime. John Trenton was on the watch in the library when he could get a good look at the room and surrounding object without being seen. He heard a slight noise from the hall.

"Jim Rogers thinks I'm afraid of his tongue does he? We'll see about that. I feel pretty sure he'll be here to-night, Lucky old Foster's out of town. Hello! there comes some one. It's Jim too. Wonder how he got in?"

At that moment a figure entered the door and gropped its way to the safe. John heard keys jingling as they were tried one after another. Then the safe door flew open. It was enough. With one spring John was upon the kneeling figure and in a moment held him bound with cords already prepared. Then he slipped out of the room with the intention of ringing the police alarm.

"Seems queer," John muttered, "he didn't make much fuss. He's drunk. That's it, But what on earth did he mean by yelling for the police and calling my name. Oh! he's jagged all right."

The police in response to his summons arrived a few moments later. John led the way to the library. Then as a match was struck, he glanced at the prisoner and received such a shock that the perspiration stood out in cold beads on his forehead.

The person lying bound on the floor was none other than the millionaire land owner, Mr. J. T. Foster.

* * * * *

No, John Trenton was not dismissed when the whole story come out.

Mr. Foster had come home late that night and Jim Rogers was arrested and given two months for drunkenness.

THE BIRTHPLACE OF WHITTIER.

In journeying from Haverhill to Amesbury Mass, you are permitted to enjoy some of the most beautiful pictures of New England scenery. Here the sight-seer can also find points of historic interest. After descending a steep hill you are quite surprised to find a large stone monument, and upon closer inspection you are informed that it marks the birthplace of the poet, Whittier.

A short walk down a sandy road brings you to an

old wooden bridge which spans a shallow gurgling brook and at this point you obtain the first view of the old two-storied frame house such as were built in New England a hundred or so years ago.

For a small sum you are permitted to enter the house where a polite attendant will show you what there is to see of interest. You are at once impressed with the simplicity which is so apparent everywhere. Unfortunately many of the Whittier heirlooms have been scattered far and wide, but thanks to the efforts of his many friends, who have formed themselves into a society, many of the old treasures have been secured and replaced. In the old parlor there is an oil painting of Whittier, the work of J. L. Smith. It is very easy to read, in the face, the beautiful character of the poet who will always remain dear to the American people and to whom we can point, as the Scotch do to Burns, for Whittier is our true national poet. In this room is also to be found some old books, medallions, samples, and some quite badly worn furniture. It is in the adjoining room where our interest is keenly aroused. This is arranged as nearly as possible as it was in Whittier's boyhood days. A very large room which served as kitchen, dining and living room. The first object to attract your attention is the great fire-place and at once the picture in "Snow Bound" flashes to your brain. Here is the old log and the twigs. Before it is the row of polished apples and the cider mug is not forgotten. Here also are the Turk's head andirons, the crane, and hanging trammels. On the shelf is a collection of candle moulds, warming pans and old cooking utensils, and from the nail hangs the old bulls eye watch. How vividly you could imagine the fire-place scene. Here the Whittier family gathered and in the ruddy light sat and listened to the Indian legends, for the Merrimac valley is famed for its Indian lore and the elder Whittier had spent his early days in the wilds of Maine and Canada. At times the subject changed to stories of hunting and witchcraft, and doubtless Whittier received from these stories the inspiration to write his Indian legends. The room is finished roughly and overhead at frequent intervals are the old sagging beams, and doubtless from these was hung the annual supply of seed and herbs. All the furnishings of the room are of course old-fashioned. On one side is an old side-board with glass

doors and in this is neatly arranged the old family china. Passing up one or two steps you enter a small room, the one in which the poet was born. There are but a few articles in the room, an old-fashioned bed, a bureau and a few chairs. After climbing up a rickety pair of stairs, you are escorted into a large dimly lighted attic—the bed-room of the Whittier boys. We can scarcely imagine a more dismal place for a young boy. Here on a stormy winter's night the snow was blown in and deposited in small drifts. A few of the old chinks can still be seen.

There are also several points of interest outside the buildings. At the back door there is a large flat stone. It was here in the summer twilight that Whittier ate his bowl of bread and milk and in later years the thought of these evenings led him to write "The Bare-foot Boy." At the corner of the house is the old well and the sweep is still preserved. Leading from the well to the adjoining wood is a small footpath which brings you to the "brook." This was one of the poet's favorite resorts. He spent many happy hours here and learned the lessons nature had in store for him.

From a large hill behind the house a fine view can be obtained of the valley. Here the boy used to climb to watch the Merrimac in its windings till it reached the ocean in the distance and in a very clear day he could catch a glimpse of the white sails. Around the farm buildings are a few cultivated fields. It was here that the poet worked performing the ordinary farm drudgery. He received very little encouragement from his father who was a rather stern pastoral man who believed it more important for his son to become a good farmer than a poet. But one day Garrison came to him and induced him to try to obtain a better education. As a result of these days we are indebted to Whittier for some of his best works. Besides the two already mentioned these are: "Telling the Bees," "Maud Muller," "Among the Hills," and many of his New England legends.

Mr. Rockefeller has added \$1,500,000 to his previous gifts to Chicago university. Of this \$1,000,000 is to constitute a part of the endowment, and \$500,000 will be available for immediate need.

COMMUNICATIONS.

MAY 20, 1901.

MR. H. L. KNIGHT, EDITOR-IN-CHIEF, AGGIE LIFE,
AMHERST, MASSACHUSETTS.

DEAR SIR :—I am decidedly in favor of retaining the name AGGIE LIFE for the paper published by the Massachusetts Agricultural College. I can see no good reason for a change of name and *certainly* the name "Aggie" is dear to *every* alumnus of the College.

I do not think the editorial in the issue of May 15th is just when it says "the alumni are rather indifferent than otherwise." When the writer of the article becomes an alumnus and actively engaged in work he will realize my criticism with greater force than two columns of print would convince him now. I am,

Yours very truly,

H. D. HEMENWAY, M. A. C., '95,

MR. H. L. KNIGHT, EDITOR-IN-CHIEF, AGGIE LIFE,
AMHERST, MASS.

DEAR SIR :—Three of us here in Elizabeth protest against any change of name in the College journal, and deprecate the change in sentiment among the undergraduates which permits such a proposition to be discussed. We cannot but believe that the element among the students which desires a change of name is influenced by motives unworthy of loyal sons of "Old Aggie," and is, withal, ill-advised.

Yours truly,

R. B. MOORE, '88,

F. J. SMITH, '90,

F. L. ARNOLD, '91.

ELIZABETH, N. J., MAY 20, 1901.

NATICK, MASS., MAY 18, 1901.

AGGIE LIFE EDITORS, AMHERST, MASS.

GENTLEMEN :—Noting your disappointment at the meagre number of replies to the question which seems to be uppermost in your minds, I hasten to suggest that probably most of the alumni, like myself, have not taken your suggestion seriously. Surely you must know that those who have gone before you have been all through this same changing mania. Change the name! Why, we had more enthusiasm than that.

We wanted to change everything; change the name, change the courses, change the instructors, in fact change the COLLEGE, but, thanks to the restraining influence of older heads than ours, we always recovered in good order.

The effects of the elimination of the word "Aggie" from the College institutions are too far reaching to be lightly set aside by undergraduates of the College. Gentlemen, you are in too much haste in this matter. Allow me to suggest that the proper time and place for an expression of opinion from the alumni is at the annual meeting at Amherst during commencement.

Very respectfully yours,

ALEXANDER MONTGOMERY, JR., M. A. C., '98.

103 BELMONT ST., CAMBRIDGE, MASS.,

MAY 23, 1901.

TO THE EDITOR OF AGGIE LIFE, M. A. C., AMHERST,
MASS.

DEAR SIR :—There being only a few communications in the last AGGIE LIFE, concerning the changing of the name of the College paper, I feel it my duty to express my opinion. I notice all who have taken the trouble to express their opinion in the last LIFE, are in favor of the old name.

And for my part I can see no object in changing the name. What could be more expressive and compact?

Why is the agricultural part so offensive? Is not the M. A. C. still an agricultural college? I understand there has been considerable discussion about the changing of the name of the College to drop the agricultural part of it, and now the discussion has fallen upon the name of the College paper, with an effort to drop the word "Aggie," a word which is beloved by every true friend of the College and the name which is given to the College by nearly all old alumni. Aggie has become an established name and why can it not be fittingly applied to the paper of the institution which has nurtured it so long, practically from the beginning?

For my part I can see no disgrace either in referring to the college paper as an Aggie paper or in referring to the College as an Agricultural College.

Yours very truly,

M. A. CARPENTER, '91.

KENT CHEMICAL LABORATORY,
YALE UNIVERSITY,
NEW HAVEN, CONN.,
MAY 16, 1901.

MR. H. L. KNIGHT, EDITOR-IN-CHIEF, AGGIE LIFE,
AMHERST, MASS.

DEAR MR. KNIGHT:—The discussion concerning the name of the college paper interests me very much. I say let it be AGGIE LIFE as it always has been. What is to be gained in a change of name? If the paper is a good paper, as it certainly is, it will command the respect of all who read it no matter under what name it is published. I should feel very much as if I were receiving a stranger if the college paper came to me under any other name than AGGIE LIFE.

Yours truly,

CHARLES A. PETERS, '97.

SAXONVILLE, MASS., MAY 25, 1901.

MR. H. L. KNIGHT, EDITOR-IN-CHIEF, AGGIE LIFE,
AMHERST, MASS.

MY DEAR SIR:—I am decidedly in favor of retaining the present name, AGGIE LIFE.

For old Aggie, Massachusetts Agricultural College, our Alma Mater, AGGIE LIFE is a name well adapted for the name of its paper.

If the institution has extended its arms into broader fields than its name, or the name of its paper, expresses, so much the better. Now let the paper present these facts to the public, keeping the college in touch with those seeking for a college education.

Why change the name? Do you think that by changing the name of our College paper, it will bring our College into more prominence, or by retaining the present name, the institution will be less thought of or prevent our classes being filled? Is the trouble with the name in the term, "Aggie?" Is it prejudice or dislike toward agriculture or anything the word suggests?

I fear that is where all the trouble lies. The Massachusetts Agricultural College, "Old Aggie" has won its way into the hearts of many; so has its representative the AGGIE LIFE.

Life at Aggie. What is it, or what has it been? Just what we, students of the present and of the future are going to make it. So will our paper, as

has been said by another, be a "reflection of the life and activities of the student body."

AGGIE LIFE has a reputation, let it so stand; let it continue to fulfil its mission. From the very first, have watched the paper with much interest. Shall continue to do so as long as it represents my Alma Mater. I sincerely hope the name AGGIE LIFE will be retained. May it be the means of bringing the students, alumni, faculty and officers into closer touch with each other than ever before.

Respectfully yours,

ARTHUR H. SAWYER, M. A. C., '91.

VISIT OF THE LEGISLATIVE COMMITTEES.

The annual inspection of the college by the Legislative committees on education, agriculture and military affairs took place on May 17th. About forty members with their wives were present. A reception in their honor was given by President Goodell at his home on the evening of the 16th. The following morning the party attended chapel at the college. Here they were welcomed by president Goodell. In an appropriate speech he referred to the most serious needs of the college, and especially the need for a new boarding house, a new chemical laboratory and a new library building. An exhibition drill on the campus by the battalion drew much applause from the party. The address to the college was made by Senator Gardner of the committee on military affairs. Senator Gardner complimented the battalion on their creditable work and expressed his surprise at the flourishing condition of the college. He regretted to say that he did not believe the college was as well-known throughout the state as its fine standing deserved. Fully 80 per cent of the people of the state in his opinion were ignorant either of the existence of the institution or entirely at sea as to the true scope and nature of its work. This unfortunate condition of affairs was due quite largely to the name of the college. Could it be called the Massachusetts State College instead, he felt sure that its influence would be largely increased. He also spoke of the unsatisfactory way in which our athletic events are recorded in the newspapers. How was a person to know that when a game was published as "Aggie, 13; Univ. of Maine 9," that the state college of Massachusetts was meant? Because of this poor system of reporting, almost all

of the credit attaching itself to a college of strong athletic abilities was lost to us. In conclusion he pledged himself to do all in his power to aid the college. After the drill, the student body gave a hearty yell for Senator Gardner. The artillery detachment fired a salute of ten guns in honor of the visitors after which according to custom college exercises for the day were suspended. After a careful inspection of the buildings and grounds the Legislative party returned to Boston, well-pleased with their visit.

SUMMER SCHOOL OF FORESTRY.

The first annual session of the Yale summer school of Forestry will be held at "Crey Towers," the estate of Mr. J. W. Pinchot, near the village of Milford, Pike Co., Pa. The course, beginning July 8, will continue eight weeks and will be in charge of Profs, H. S. Graves and J. W. Tourney.

The purpose of the Summer School is to provide instruction for those who do not wish to take, or are not ready for, the more advanced technical courses at regular Forest Schools. The course is designedly (1) for owners of woodland and others wishing to obtain a knowledge of the principles of Forestry and a practical acquaintance with its branches; (2) for persons who wish to fit themselves for practical work as forest rangers; (3) for teachers in Agricultural, Industrial and other schools in which Nature Study and Botany are taught; (4) for persons desiring to acquire a general knowledge of Forestry or any of its branches, especially Forest Botany; (5) for students of Forestry deficient in certain subjects. There will also be an excellent opportunity for advanced students to carry on a special work under the immediate supervision of Professors Graves and Tourney.

The five regular courses, of which the student may take all or select only a portion, are as follows: Forest Botany, Silviculture, Forest Measurements, Introduction to Forestry, and Forest Protection. Practical work in the neighboring woods will form a very important part of the instruction. Frequent excursions will be made with Professor Tourney in charge, in order to familiarize the student with the habits and growth of the trees, shrubs and flora of the vicinity.

The site of the Summer School combines the advantages of excellent opportunities for practical forest study and field work and of a pleasant and health-

ful summer resort. Milford lies on the west bank of the Delaware River not far from the boundary line of New York and New Jersey, and is reached from Port Jervis, N. Y. on the Erie railroad. The village has ample accommodations for visitors in several large hotels and boarding houses.

The school building stands on a hill overlooking Milford from which it is about a mile distant. It is situated in a picturesque region and overlooks a wide extent of the beautiful Delaware Valley. Less than a quarter of a mile from the school is the glen of the Sawkill with the well-known Sawkill Falls.

Through the generosity of Mr. James W. Pinchot the school has been thoroughly equipped for the purposes of instruction. The building contains a hall capable of seating 100 persons and two smaller rooms, one of which will be used as a laboratory and the other as a special library and reading-room. Besides the woods on the estate, one of the Pennsylvania State Forest Reservations near by will be available for study. The excellent collection of books on Forestry in the Milford Library, especially intended for the use of the students of the summer school, will be of great service.

For the accommodation of those who desire to live in the school camp, not more than 25 large, comfortably furnished tents will be provided as also board, by the school at a reasonable rate. This camp will be situated on high, dry ground near the Sawkill Falls. Board and lodgings may also be procured in the village. The tuition fee will be \$20 for the term of eight weeks. There are no entrance examinations. The advantages of the school are open to men and women alike. Candidates must however be at least 17 years of age. Applications for admission should be sent to Professor Graves, 360 Prospect St., N. Haven, at once.

FOOT BALL SCHEDULE 1901.

Sept. 28.	Holy Cross at Worcester.
Oct. 5.	Middlebury at Amherst.
9.	Trinity at Hartford.
12.	Wesleyan at Middletown.
16.	Williams at Williamstown.
19.	Worcester Tech. at Worcester.
24.	Bates College at Amherst.
Nov. 2.	Springfield Training School at Amherst.
9.	Amherst at Pratt Field.
16.	Storrs at Amherst.

College Notes.

—The electric cars are running to Sunderland.
—Gilbert 1904 has joined the College Shakespearean Club.

—The band gave a very fine concert on the campus last week.

—J. W. Gregg recently spent Sunday in Gardner as the guest of H. L. Knight.

The Q. T. V. fraternity rooms are soon to be moved to the third floor in North college.

—G. L. Barrs and P. W. Brooks spent last week in Goshen at the home of the former.

—Preparations are being made so that North College dormitory will be heated by steam.

—The Charitable committee of the Legislature recently spent a day's outing at the college.

—C. A. Tinker 1903 has gone to Buffalo to look after the College exhibit at the Pan-American.

The Junior class have chosen Gates, Hall, Claflin and Morse to aid the Senior "Prom." committee.

—Prof. Maynard recently lectured before the grange in Sunderland, his subject being "Country Roads."

—Hereafter the fee of twenty-five cents will be charged for the privilege of ascending Mt. Sugar Loaf.

—The Drill Hall is be remodeled and a room is being fitted up for the use of the Athletic teams. Shower-baths, rubbing tables, lockers etc are being put in place.

—Quite a number of prospective freshmen have visited the College recently and all seem to be greatly pleased with the institution.

—There is at present a bill before the legislature calling for an appropriation of five-hundred (\$500) dollars for the use of the band.

—On May 17th the Senior "Polycons" defeated the Sophomores in a close and very exciting game of ball. Polycons 8: Sophomores 7.

—At the preliminary speaking held on Saturday, May 25th., the faculty chose the following men to compete in the Burnham prize speaking: Sophomores, H. J. Franklin, W. W. Peebles, E. G. Proulx and F. W. Webster; Freshmen, F. D. Couden, J. W. Gregg, C. H. Griffin and R. R. Raymoth.

—During the coming summer all the wooden building about the college are to be repainted. The work will be under the charge of J. R. Perry '93.

—M. F. Ahearn had his knee quite seriously injured in the Univ. of Maine ball game. He has been under the care of a doctor for several weeks but is once again outside and will probably be in the game again this week.

—Attention is called to the Senior Prom. of Tuesday, June 18th. No pains should be spared to bring into prominence the social side of our college life, and we hope that the Prom. will receive the hearty support of students and alumni. Invitations may be obtained of W. D. Whitman, '01.

—With the winning of the Univ. of Vermont game closed the list of the four scheduled home games each one of which has been won by the home team. The students showed their appreciation of the good work which the team is doing by building a large bonfire on the campus. The celebration was kept up until a very late hour.

—The Legislature paid the college its annual visit on May 17th. After chapel the Battalion had dress parade and review followed by a short battalion drill and drill by the Artillery Detachment which included the firing of a salute of ten guns in honor of the visitors. During the drill chairman Gardner of the Military committee made a very fine address on changing the name of the college. After the drill the party spent the remainder of the day in inspecting the college. College exercises for the day were dispensed with.

—The Freshman defeated the Amherst High School on the campus last Saturday by the score of 5 to 4. The game was loosely played but enlivened by a number of remarkable plays and quite exciting at times. Bowler played the best game for the Freshmen, though Newton made a sensational one-handed catch at second and Gregg played well at third. Crook and Chapman did good work for the High school. The score:

'04.

	A.B.	B.	P.O.	A.	E
Bowler, s.p.,	2	0	1	1	0
Newton, 2.,	3	1	2	0	1
Heffenreffer, c.,	2	0	4	1	1
Gregg, 3.,	3	0	4	1	0
Cummings, 1.,	3	1	5	2	2
Fahey, r.,	3	0	0	0	0
Handy, m.,	3	0	2	0	1
Raymoth, l.,	4	0	2	0	0
Griffin, p. s.,	3	1	0	0	0
Total	22	3	21	5	5

A. H. S.	A.B.	B.	P.O.	A.	E.
Donahey, c.,	3	0	5	4	0
Baker, s.,	3	1	4	0	1
Chapman, p.,	3	2	0	1	0
Cook, 2.,	3	1	2	0	1
Foley, 2.,	3	0	0	0	1
Ward, l.,	2	0	2	0	1
Cobb, m.,	3	0	2	0	0
Towne, l.,	2	0	3	0	0
Bridgman, r.,	2	0	0	0	0
1904	24	4	18	5	4
A. H. S.	1	1	0	2	0
	1	0	0	0	3-4

Runs—Bowler 2, Heffenreffer 2, Raymoth, Donahey 2, Baker Bridgman. Two base hit—Griffin. First base on errors—'04 3. Stolen bases, Baker, Chapman, Ward, Towne, Bowler 2, Haffenreffer 2, Cummings. Bases on balls—off Griffin 5, off Chapman 5. Struck out—by Bowler 2, by Chapman 4. Umpire, Bodfish.

Athletic Notes.

AGGIE, 3: UNIV. of MAINE 9.

On Tuesday May 14 Aggie defeated Maine on the campus by a score of 13 to 9. The game was poorly played by both sides. Bodfish was not up to his usual form allowing eight hits and eleven bases on balls. Ross for Maine had better control allowing only four bases on balls. Aggie out batted Maine having thirteen hits, a home run and two two base hits. The feature of the game was O'Hearn's home run.

For Aggie Paul, Graves and O'Hearn played the best game while Dorticos and Batcheler excelled for Maine.

M. A. C.	A.B.	B.	P.O.	A.	E.
Paul, s.,	5	2	2	1	0
O'Hearn, 3,2.,	5	3	3	2	0
Graves, m.,	5	2	1	0	0
Cummings, l.,	4	0	11	1	2
Bodfish, p.,	5	3	0	8	2
A'Hearn, 2.,	1	0	0	3	0
Gregg, 3.,	4	0	0	1	3
Bowler, r.,	5	1	0	0	0
Cook, c.,	2	1	10	3	2
Harris, r. l.,	4	1	0	0	0
Total	40	13	27	19	8

UNIV. OF MAINE.	A.B.	B.	P.O.	A.	E.
Holmes, m.,	5	1	1	0	0
Carr, 2.,	5	0	0	1	0
Chase, c.,	3	1	11	1	1
Davis, 3.,	5	3	2	1	1
Webber, s.,	5	1	0	2	4
Dorticos, l.,	5	1	5	0	0
Batcheler, r. l.,	4	0	2	0	0
Russell, r.,	1	0	3	0	1
Ross, p.,	4	1	0	1	1
Total	36	8	24	6	7

M. A. C.	U. of M.
1	1
4	0
2	1
0	0
0	4-13
0	0
0	9

Runs—Paul 2, O'Hearn 2, Graves 2, Cummings 3, Bodfish 3, Gregg. Cook, Holmes, Carr, Chase 2, Dorticos, Russell, Ross. Stolen bases—Holmes 3, Carr, Chase, Russell 2, Paul, Bodfish, Gregg.—Two base hits—Bodfish, Gregg.—Three base hits—Davis. Home run—O'Hearn. First base on balls—off Bodfish 11, off Ross 4. Struck out—by Bodfish 5, Ross 8. Passed balls—Chase, Cook. Time 2 hrs. Umpire Smith.

TRINITY, 3; AGGIE, 2.

Aggie met its first defeat of the season at Hartford on Friday, May 24, by a score of 3 to 2. Both

teams fielded well, Aggie having only one error and Trinity two, none of which were costly.

Aggie was first at bat and went out in one, two, three order. For Trinity Fiske and Goodrich were fielded out. Henderson was given his base on balls and was advanced to third on a hit by Mann. Henry hit safe scoring Henderson and advancing Mann to third. On a hit by Van De Water Mann scores. Brigham is fielded out, making a score 2 to 0. Neither side scored in the second or third inning, but in third both sides got a double play.

In the fourth O'Hearn hit for two bases and scored on a hit by Graves the next three men were fielded out. In the eighth inning Aggie makes another run, tying the score, two to two.

The ninth inning was exciting. Bodfish was up for Aggie and was caught out by Townsend, Cook flied out and Fiske held Pierson's hard drive to third. This was Aggie's last opportunity to score, Townsend of Trinity hit safe. Brown was thrown out by O'Hearn. Fiske drove a long fly to Graves who caught it but was unable to prevent Townsend from scoring from third, making score 3 to 2 in Trinity's favor.

The feature of the game was the catch of a line hit by Graves which prevented two men from scoring, a double play by Bodfish, O'Hearn and Cummings, and one by Fiske, Townsend and Brigham.

M. A. C.	R.	B.	P.O.	A.	E.
Paul, 2.,	0	1	4	3	0
O'Hearn, 2.,	0	1	1	0	0
Graves, m.,	0	0	14	0	0
Cummings, l.,	0	0	0	4	0
Bodfish, p.,	0	0	2	0	0
Cook, c.,	0	0	2	0	0
Pierson, r.,	0	0	2	0	0
Harris, l.,	0	0	1	0	0
Gregg, 3.,	1	1	2	2	1
Total,	2	4	26	10	1

TRINITY.	R.	B.	P.O.	A.	E.
Fiske, 3.,	0	1	3	0	0
Goodrich, p.,	0	0	0	7	0
Henderson, 3.,	1	0	1	3	0
Mann, l.,	1	1	1	0	0
Henry, c.,	0	1	7	0	0
Van De Water, m.,	0	1	1	0	1
Brigham, l.,	0	1	11	0	0
Townsend, 2.,	1	1	2	5	1
Brown, r.,	0	1	1	0	0
Total,	3	7	27	15	2

Innings,	1	2	8	4	5	6	7	8	9
Trinity,	2	0	0	0	0	0	0	0	1-3
M. A. C.,	0	0	0	1	0	0	1	0	2

At bat—M. A. C. 31, Trinity 32. Base on balls—off Bodfish 5, off Goodrich 1. Two base hits—O'Hearn, Fiske. Struck out—by Bodfish 4, Goodrich 2. Hit by pitched ball—Bodfish, Gregg. Time—1 hr., 35 m. Umpire—J. D. Plymn, of Trinity.

AGGIE, 10 ; UNIV. OF VERMONT, 9.

Aggie added another victory to her list by defeating the University of Vermont on the campus May 21 by a score of 10 to 9. The game was loosely played, both teams having a number of costly errors in which Aggie excelled, having eleven errors to her credit. Aggie won the game by timely hitting which in some measure made up for her errors, without which her victory would have been more decisive.

Graves at center played a good game and led the teams in batting with a triple and a single, the former scoring two men. Cook and Cummings also played good ball, Cook having three singles to his credit.

For the visitors Reed at third, Wasson at catch and Hutchinson at second did the best individual playing. The score :

M. A. C.									
	A.B.	B.	P.O.	A.	E.				
Paul, s.,	5	1	1	1	2				
O'Hearn, 2,	5	2	1	3	3				
Graves, m.,	5	2	1	0	0				
Cummings, 1.,	4	1	13	0	0				
Bodfish, p.,	5	2	0	7	1				
Pierson, l.,	4	1	0	0	1				
Cook, c.,	4	3	7	3	0				
Gregg, 3.,	5	0	2	2	3				
Halligan, r.,	4	0	2	0	1				
Total,	41	12	27	16	11				
U. OF V.									
	A.B.	B.	P.O.	A.	E.				
Robinson, l. s.,	5	0	1	0	1				
Wasson, c.,	5	0	4	0	0				
O'Halloran, m.,	5	1	3	0	1				
Orton, 1.,	5	1	13	1	0				
Willis, s.,	5	2	2	3	4				
Reed, 3.,	5	2	2	3	0				
Kinlock, r.,	4	4	0	0	0				
Hutchinson, 2.,	4	0	1	6	0				
Taylor, p.,	4	2	0	3	0				
Fogg, l.,	1	0	0	0	0				
Total,	42	8	24	14	6				
Innings,	1	2	3	4	5	6	7	8	9
M. A. C.,	3	0	1	3	1	0	0	2	0—10
U. of V.,	1	0	0	2	0	2	0	3	1—9
Runs—Paul 2, O'Hearn 2, Graves 4, Cummings, Cook, Wasson, O'Halloran, Orton, Willis 3, Reed 3, Hutchinson. Total bases—M. A. C., 14, U. of V., 9. Stolen bases—O'Hearn 2, Graves, Cummings, Cook, Gregg, Halligan, O'Halloran, Orton, Reed, Taylor. Two base hit—Orton. Three base hit—Graves. First base on ball—off Taylor 3. Struck out—by Bodfish 7, by Taylor 3. Passed balls—Cook, Wasson. Left on bases—M. A. C., 10.—U. of V.—5. Time—2 hr., 15 m. Umpire—Halligan.									

Runs—Paul 2, O'Hearn 2, Graves 4, Cummings, Cook, Wasson, O'Halloran, Orton, Willis 3, Reed 3, Hutchinson. Total bases—M. A. C., 14, U. of V., 9. Stolen bases—O'Hearn 2, Graves, Cummings, Cook, Gregg, Halligan, O'Halloran, Orton, Reed, Taylor. Two base hit—Orton. Three base hit—Graves. First base on ball—off Taylor 3. Struck out—by Bodfish 7, by Taylor 3. Passed balls—Cook, Wasson. Left on bases—M. A. C., 10.—U. of V.—5. Time—2 hr., 15 m. Umpire—Halligan.

Alumni.

'91.—Arthur H. Sawyer, Saxonville, Mass.

'95.—THE LIFE has received the communication from Elias D. White, to the effect that he was not the victim of the recent hold-up on the Central of Ga. R. R. as was stated in our last issue. We congratulate Mr. White for not being compelled to enjoy such a privilege.

'95.—Waldo L. Bemis, Spencer, Mass.

'93.—John R. Perry, who is at present in the paint business with his father in Boston will aid the College during the coming season, in the work of painting the wooden buildings belonging to the College.

'95.—The marriage is announced of C. W. Crehore to Miss Alice Rowley, at Chicopee, May 8th, 1901. At home after June 20th, 357 Chicopee St., Chicopee, Mass.

'97.—Charles A. Peters delivered an address before the Chemical club of the Yale university, May 25th on the "Determination of Persulphates."

'99.—Howard E. Maynard of M. I. T. will accompany his division in electricity to the Pan American exposition during the coming summer, The party will consist of eleven members and will make a study of the subject of electricity. They will visit the general electric works at Schnectady, and also the generating works at Niagara Falls.

Ex-'01.—A very interesting letter has been received by a college friend from William B. Rogers, who is a member of the 15th Reg't and who is now serving in the Philippine Islands. Mr. Rogers served in China during the late troubles with that Empire and left there on the 28th of Nov. last and arrived at Manila Dec. 25th, since which date he has been serving with his regiment in the mountains and is now stationed at Segaspi. The letter gives a very interesting account of the way in which the fighting is carried on and also of the manners and customs of the people. It seems that the troops have great contempt for the fighting qualities of the "insects" as the natives are called, although it seems very hard to capture them as they hide in the mountains and fire from cover. Mr. Rogers writes further, that the greatest excitement is to be had during cock fights and on pay day.

Department Notes.

The latest addition to the series of crayon portraits of the noted chemists of recent years now being placed in the Chemical Lecture Room is that of Dr. C. A. Goessmann. By his valuable researches along the line of agricultural chemistry and especially in fertiliz-

ers, at a time when the subject was a new and undeveloped one, Dr. Goessmann has most certainly earned a right to a place among the foremost chemical students of the day. The portrait is an enlargement of a photograph taken just before the Doctor's European visit, and is pronounced an excellent likeness.

LIBRARY.

Landscape Gardening, by F. A. Waugh, professor of horticulture at the University of Vermont. This is a treatise on the general principles governing outdoor art, with sundry suggestions for their applications in the common problems of gardening. Illustrated.

Hedges, Windbreaks, Shelters and Line Fences, by E. P. Powell. A treatise on the planting, growth and management of hedge plants for country and suburban homes. Illustrated.

Cauliflower and Allied Vegetables, by C. L. Allen. This book explains the principles and practice of certain rules equally useful in every field, no matter what the crop may be, or to what extent grown. Illustrated.

Hemp, by S. S. Boyce. A practical treatise on the culture of hemp for seed and fiber, with a sketch of the history and nature of the hemp plant. Illustrated.

Alfalfa, by F. D. Coburn, secretary of the Kansas department of Agriculture. A volume of practical information on the production of Alfalfa, its qualities, worth and uses, especially in the United States and Canada. The authors object is to give a wider knowledge of the worth and way of the plant, and to encourage its more extended propagation. Illustrated.

Plums and Plum Culture, by F. A. Waugh. A monograph of the plum, cultivated and indigenous in North America. With a complete account of their propagation, cultivation and utilization. The book describes the pomological importance of each group, its botanical position, probable origin, character and hardiness.

Structures and Functions of Bacteria, by Alfred Fischer, professor of Botany at the University of Leipzig, translated into English by A. C. Jones. This volume contains the course of lectures delivered for some years to students of biology, pharmacy, and agriculture. It gives a survey of the innumerable special researches, and indicates in broad outlines the present position and extent of bacteriological science. It points out and emphasizes the advancement that general physiology has received from bacteriological

investigations, and that bacteria has been removed from the isolated position to which their morphological and physiological peculiarities has placed them, also indicating their relations to other organisms.

The First Century of the History of Springfield, with an historical review and biographical mention of the founders, by Henry M. Burt. The complete work comprises two volumes, containing together over twelve hundred pages. It gives a brief review of some of the leading events, and a chronological summary from which dates of occurrences can be readily obtained. The official records in the book have been followed literally in orthography, punctuation and capitalization. The second volume contains numerous specimens of various handwriting found in the town records, and of seventy autographs. The individual characters of the writers and of their degree of training in penmanship are revealed in these as they could be in no other way. There are facsimiles of two interesting papers in the vigorous handwriting of Deacon Samuel Chapin. One is a deed dated May 21, 1667.

Industrial Social Organism, by J. C. Van Marten.

Histories of the towns of Danvers and Haverhill, have been recently added to the collection of town histories.

ZOOLOGICAL.

One of the rattle snakes, *crotalus horridus*, presented to the museum of the Zoölogical department was found dead in its cage last Friday morning. It measured three feet, six and three-quarter inches in length and had eight rattles. The pair of which the above was one, were captured last fall in Portland, Conn.

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The mink shot by Senior Wilson has been mounted and added to the collection in the museum.

A garter snake, a spread adder, a horned toad, and a chameleon have been recently added to the collection of live curiosities.

Intercollegiate.

The faculty of Indiana university at Bloomington has taken a decisive stand against class "scrap," and has probably succeeded in breaking up the annual freshmen-sophomore struggle, which takes place on February 22. Only a few students participated in the "scrap" of last February. At the beginning of this term the faculty decided that those students, 12 in number, should be deprived of their credits for the preceding term's work.

The following are the scores of some of the most important base ball games: Princeton 12, Holy Cross 4; Brown 5, Dartmouth 0; Yale 12, University of Michigan 3; Williams 2, Wesleyan 1; Amherst 7, Tufts 0; Brown 9, Michigan 8; Trinity 3, M. A. C. 2.

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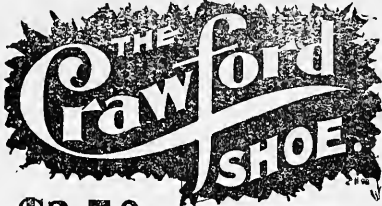
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AMHERST, MASS.

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Editorials.

AGAIN the college year has run its course, and Commencement joys and Commencement sorrows press upon us. Surely no other season can compare with this. For the alumnus, glad reunions, too soon changed into hasty partings; for the undergraduate, eagerly-awaited promotions, thoughts of vacation joys, a glad farewell to study for happy months; for the Senior, regret at leaving the old familiar haunts anxiety for the unknown Future, pleasant memories of the happy past; all these mingled together on the dear old campus under the clear June sky. Students, alumni and friends, we bid you all our most cordial welcome to our Commencement.

Most of the undergraduates are looking expectantly forward in the hope of greeting a large entering class next fall. There seems to be considerable ground for their hopes. The college authorities have, it is true, maintained their usual inactivity. One would suppose that the question of growth, vital as it

is, was one of the last to commend itself to our trustees. The alumni, however, have taken the matter in hand, and their committee has done most creditable work in advertising the college. The result is a lively curiosity aroused in sections where the college was previously unknown and an increased interest, all over the state. Just how large the results, as measured by increased membership, will be is uncertain. We must not expect too much. The combined handicap of ignorance of our existence, prejudice at our name, and misunderstanding of our work is too serious to be removed at a single blow. The present policy of liberal advertising must be continued year after year to give lasting results. It ought to be understood too that the work of such a committee must needs be limited. Contributing cash to the fund and sending in addresses of our friends are excellent ways of assistance, but they are not enough. Personal work is what must be depended upon. Let each student and each alumnus but succeed in bringing to the college one new man next fall, and our most serious problems will be solved very easily.

It was the misfortune of our baseball team to lose mainly at the end of its season's play. As events nearly always overshadow those of the distant past and as it seems to be more nearly according to human nature to condemn than to uphold, we fear that our team has been receiving of late more than its just share of blame. The outcome of the Vermont trip was not perhaps as favorable as we had hoped; yet to severely condemn because of two games lost by narrow margins and to forget the victories that had preceded is clearly an injustice. It ought to be remembered that a long and tiresome trip must be a severe test for any team, and it is not strange that its form may not be of the best at such times. Our schedule has been a hard one, far more difficult than any preceding. Various mishaps have weakened the team at critical periods. The discipline has not always been of the best. Yet in spite of obstacles, the team has won seven games out of eleven, among them Amherst, Vermont, Maine and Middlebury and has lost to Trinity by the barest possible margin. Bearing these facts in mind we believe that the baseball team of the past season has to its credit the best record in the history of the college.

WHEN the College Senate reorganized last year it was hoped that it might become an active power of considerable value in our college life. That the first Senate failed because it attempted too much, none will deny. Yet the need of some organized body which shall act as a committee of the students on matters of college custom is sorely felt. A number of vital questions are now demanding our attention. For instance, there is the campus rush. It is held every year as a mere matter of tradition, but we do not believe that college sentiment really favors it. The objection is not that it is *dangerous*. It is very doubtful if it can be called so, considering the small number engaging in it and the short space of time during which it is kept up. Certainly the risk is not very great. But the fault lies in the fact that it settles nothing. There is no way to decide a winner and no decision if one is given is ever accepted as satisfactory. For the last three years it has been an absolute farce. Why keep up a custom that is both undecisive and useless? We suspect there is but one reason. Nobody has ever thought it is duty to con-

sider it, and consequently it has drifted along. We think it is the duty of the Senate to consider it. Then there is the college yell. The students who favored a change of name of the LIFE, and it will be remembered that two-thirds of the students did desire a change, must be equally dissatisfied with the yell. Why keep the old yell if it has become unsatisfactory? Let the Senate consider the matter and report its decision to the student body in mass-meeting. Again, there is the ever-vexatious question of college singing. There is plenty of material, there is a desire for more real college life; yet everyone waits. If college singing could be once well-started, there is not the slightest doubt that it would be continued as a recognized college custom. Why cannot the Senate at least attempt to institute such a custom? The Senate might also nominate leaders of the cheering at our athletic games. It might take charge of celebrations. Had some responsible person been in charge the night of the Vermont celebration, the unfortunate cannon accident would never have occurred. There is no need for the Senate to fail because there is nothing to keep it alive. It has the best of opportunities. Let us hope that it will make the most of them.

AT the risk of wearying our readers with what is already too familiar, we desire at this time to set forth as briefly as may be some of the most pressing needs of the college from the standpoint of the undergraduate. We refer to them constantly because they are constantly in our thoughts; they represent what is always present in our minds. First and foremost comes the athletic field. Of late we have said little of this, yet be assured that we have not forgotten it. How can we, when every heavy tax upon the slender purses of the student body clearly points to this, the only logical solution of our needs? How can we, when every visiting team marvels at our absolute lack of accommodations? How can we, when every would-be track athlete has to travel miles and then find an opportunity for training only through the good will of another college? The athletic field is by all means our most serious problem. Hitherto we have waited, and waited, and waited; and now something like fifteen years after the agitation began we find ourselves still forced to play our games on an open field, and dispense with our track team altogether.

What have we gained? We are very likely impatient; yet is it to be wondered at that we lose heart when year after year we have the same promises, arouse the same enthusiasm, and then see the same inactivity? We do not doubt that some time our desires will be granted; but what are we waiting for? We have heard promises in plenty; why can we not have *action*? Of the need of more students we have already spoken at length. Once again we thank the alumni for their generous response to the advertising work of the year; we sincerely hope that they will but be able to continue it. We still have hope too that sometime the college itself will awake. What a deal of good an attractive catalogue might do! What expenditure of money, too, would give a better return than thorough, business-like advertising? The old question of junior electives too comes up for solution. It is another of our problems that will never be settled till it is settled in the right way. Here again we have promises, here again everyone admits the justice of our demands; but still the question is "When?" And in the meantime classes continue to waste precious hours on studies for which they have no use, from which they obtain nothing of value, while prevented from studying deeply into lines in which they are genuinely interested. Of the need for a new boarding-house, it is probably unnecessary to speak. Here the students feel that everything possible is being done, and accordingly they do not criticize. One minor need which is still keenly felt is the need of a college song. We feel sure that all who attend our commencement, our athletic games, our celebrations, or, in fact, any of our gatherings, will admit this without further argument. We admit that the students are not without blame for neglecting to provide a good college song. At the same time it is the old case of "everybody's business being nobody's business." We believe if some alumnus or other friend of the college were to offer a prize of even a small sum for a suitable song, that we should not long be without one. Or what better gift could a class make than a small sum each year to be expended either in this way or in compiling a college songbook? Whoever will do this will prove himself a true friend of the college. In presenting these several needs to our readers, we desire it understood that we are working first and last for the best interests of our college. We have no

desire to even appear to "dictate" to the trustees, the faculty or the alumni. But the student-body cannot help seeing these things, and they cannot help regretting that they are not otherwise. As the servants of the student-body, the LIFE board would be shrinking from its responsibility if it saw these things, and, seeing them, let them drift along without comment.

REVIEW OF THE YEAR.

The last college year has been marked by no radical changes but represents a season of quiet, continuous growth. The entering class numbered thirty-eight and the entire registration showed a slight increase over the last few years. The greatest gain was in the graduate department where new courses were offered and special facilities for research work enjoyed. Few changes were made in the Faculty, Mr. Geo. F. Babb being appointed instructor in French, and the fellowship in Chemistry being awarded to Mr. George F. Parmenter. German was added to the required list in the Sophomore year, and Geology to the Junior year. Admission requirements have been raised by the addition of the whole of Plane Geometry and the substitution of General History for American History. The plan of entrance on certificate was again followed with satisfactory results. The 10 per cent. system was also continued and seems to have solved the vexations problem of absences. The college year has been divided into two semesters instead of three terms, and it is expected that the change will prove more convenient.

A policy of more liberal advertising of the short winter courses was pursued and the result was significant. Over thirty men were enrolled, more than double the number for any previous year. Since a number of these now plan to enter the Freshman class next fall the gain to the institution is evident.

The College was fairly successful in its requests from the Legislature. An appropriation was received for repainting the wooden buildings, making various repairs and renovating the chemical department. After the visit of the Legislative committees, a bill was introduced providing for an appropriation for the band. This has passed both the House and at the time of writing awaits the signature of the Governor. The measure in which the students were most interested,

the building of a new boarding house was however forced to be abandoned. There is reason to believe that it will be successful next fall.

The athletics of the past year show a marked gain in most respects. Last fall, the football team played the hardest schedule ever presented to us with creditable results. The baseball team has shown itself the best in the history of the college, making for itself a good showing against strong teams this season. In comparing the results of this year's work with that of previous years, it must be remembered that the grade of the teams played has been constantly getting higher. Three years ago it would have been impossible to arrange games with teams played at the present time. This of itself proves the increased standing of the college in athletic circles. The athletic management of the year has been of the best. It has shown itself competent, earnest and pains-taking, and deserves special commendation. To it much of the year's success has undoubtedly been due. The one disappointing feature of our athletics in the failure to organize a track-team. It is to be hoped that this will be remedied next year.

The social life of the year is also fairly satisfactory. The Proms. have been carefully arranged, well attended and a source of much enjoyment to all. The need of other social gatherings of a more informal nature has been sorely felt, and the Fraternity Conference in coöperation with the ladies of the faculty arranged two very very successful socials in the Chapel. Probably complete social successes cannot be expected until we have fraternity houses, but certainly there is already some improvement. The fraternities report a prosperous year. The system of withholding pledges till the opening of the winter term was given a second trial, and again proved itself far superior to the old methods.

The reading-room opened the year with a newly papered and refurnished room. Its record for the year is good. The Boarding-Club while sadly in need of a new building has been well patronized and fairly successful. The Y. M. C. A. gave its usual reception to the incoming class and has pursued its customary work. Its *Handbook* was better than usual. It has received new strength from the Freshman Class and appears to be flourishing. The Senate on the other hand, though reorganized early in the year and promising much, was

conspicuous only by its insignificance. The choir and glee club probably did as well as usual.

After remaining dormant for two seasons, the Natural History Society was revived. Several field excursions were taken, and a series of instructive lectures was given under its auspices during the winter term. The Chemical Club also arranged for a series of lectures, which were of much value and interest to those who attended. A new organization, the Forensic Club, did considerable work during the winter along the line of debating.

The military department deserves special mention. Marked improvement and increased interest is evident. In the fall the battalion entered several political parades where they attracted much attention and were the object of many flattering remarks. Artillery practice was given once more, considerable attention paid to target practice, and bayonet exercise added to the winter's drill. The most marked gain has been in the formation of a cadet band. By dint of steady practice and hard work, the band has now attained an extremely high state of proficiency. Very enjoyable concerts have been given each week on the campus, and the band has been no small factor at the home games this season. We are expecting much from the band next year.

Perhaps no movement of late has been followed by the student body with more interest than the work of the alumni advertising committee. It is hoped that a good sized class will enter next year and the prospects seem to indicate that our hopes will at last be realized. Certainly the interest was never more keen. Every indication points to a large attendance and a prosperous year.

ANNUAL FRESHMAN BANQUET.

The "Class of 1904" held their first banquet at Cooley's Hotel in Springfield on Freshman night which this year came of June 14. A good share of the class were present, about twenty-five members answering to their names at roll-call. The party strung into Springfield in small groups all through the afternoon and evening and gathered in the hotel office. About eleven o'clock they proceeded in a body to the banquet hall where they sat down to enjoy what will be remembered as one of the pleasantest events of the college course.

The formality characteristic of the first few courses

soon gave place to those feelings of fellowship and good humor which are bound to prevail on such an occasion and jokes and small talk went the rounds.

It was about 12-30 when the menu was completed and Toastmaster Griffin arose to introduce the first speaker. For the next two hours the laughter and enthusiastic applause which greeted the remarks of several speakers testified to the enjoyment of the toasts, as well as to the patriotism of the class, and their readiness for their duties which will fall to them as sophomores during the coming year. The past, present, and future of the class were discussed at length by Messrs. Newton, Kelliher, Cummings and Gregg, and toasts of a more humorous turn were responded to by Messrs. Gay, Raymoth, Couden, and Hill. The roasts on individuals were many but everything was taken in the kindly way that prevailed throughout the evening. Singing and cheering during the intermissions between the speaking helped to make things lively. The different toasts were as follows:

TOASTS.

"He who hath a merry heart hath a continual feast."

Toastmaster, C. H. Griffin.

H. D. Newton, Our Class

"Our constant boast; none come before the only class, 'tis '04."

J. Kelliher, "To do or not to do"

"Of making many books there is no end; and much study is a weariness to the flesh."

R. P. Gay, Our Little Minister

R. R. Raymoth, Fat

"A babe in the house is a wellspring of pleasure."

J. Cummings, Athletics

F. D. Couden, The Root of all Evils

"For what is worth anything,
But so much money as it will bring."

L. W. B. Hill, The Adventures of a Prof.

J. W. Gregg, Prospects

"The distant but still unclouded vale wherein our future lies."

The programme having been completed, several extemporaneous speeches were listened to and then the gathering broke up, all joining in congratulating the committee on the arrangements which had provided for a night of so much jollity and enthusiasm.

Much credit is due the management of the hotel for the manner in which the supper was served and for the excellence of arrangement which marked the whole occasion.

Western Reserve University has recently received gifts to the amount of \$100,000.

THIRTY-FIRST COMMENCEMENT PROGRAM.

SUNDAY, JUNE 16TH.

Baccalaureate Sermon by Dr. C. S. Walker, 10-45 A. M.

MONDAY, JUNE 17TH.

The Flint Prize Oratorical Contest, Junior class, 3-30 P. M. Speakers: Mr. Dacy, Mr. Hall, Mr. Knight, Mr. Lewis, Mr. Morse and Mr. West.

The Burham Prize Speaking, Freshman and Sophomore classes, 8 P. M. Speakers: Sophomores, Mr. Franklin, Mr. Peebles, Mr. Proulx, Mr. Webster; Freshmen, Mr. Couden, Mr. Gregg, Mr. Griffin and Mr. Raymoth.

TUESDAY, JUNE 18TH.

Alumni Meeting in the Mathematical Room, 9 A. M.

Annual Meeting of the Trustees at the office of the Hatch Experiment Station 9-30 A. M.

Meeting of the committee on Experiment Department, at the office of the Hatch Experiment Station, 11-30 A. M.

Class Day exercises, 1-30 P. M. Speakers: Mr. Barry, Mr. Dawson, Mr. Gordon, Mr. Rice, Mr. Todd Mr. Whitman. Battalion parade, battalion drill, 4 P. M. Suppers of the various classes, 6 P. M. Reception by President and Trustees, 8 to 10 P. M. Senior Promenade in Drill Hall, 10 P. M.

WEDNESDAY, JUNE 19TH.

Graduation Exercises, Annoucement of Prizes, and Conferring of Degrees. 10 A. M. Commencement speakers: Mr. Chickering, Mr. Gamwell, Mr. Gordon, Mr. Hunting, Mr. Macomber and Mr. Wilson. Alumni Dinner, immediately following the graduation exercises.

THURSDAY AND FRIDAY, JUNE 20TH AND 21ST.

Examination of candidates for admission at the Botanic Museum, 9 A. M. Two days are required for examination.

PROGRAMMES.

THE FLINT PRIZE EXHIBITION IN ORATORY.

Monday, June 17, 1901.

Music.

Glaude Isaac Lewis,

Municipal Government.

Unionville

Howard Lawton Knight, Centralization.	Gardner	Pipe Oration, Hatchet Oration,	N. P. Whitman J. H. Todd
David Nelson West, The Constitution and the Voter.	Northampton	COMMENCEMENT EXERCISES.	
Music.		Wednesday, June 19, 1901.	
Ransom Wesley Morse, Modern Oppression.	Belchertown	Music.	
John Clifford Hall, A Plea for the American Farmer.	Sudbury	Prayer.	
Arthur Lincoln Dacy, So Brothers Be.	Boston	A Need of the Hour, Clay,	Nathan Justus Hunting Ernest Leslie Macomber
		The Negro Problem,	Edward Stephen Gamwell
		Music.	
THE BURNHAM PRIZE SPEAKING.		America's Opportunity, Growth,	Alexander Cavassa Wilson James Henry Chickering
Monday, June 17, 1901.		Discipline,	Clarence Everett Gordon
Music.		Presentation of Diplomas.	
Freshmen.		Announcement of Prizes.	
John William Gregg, Treason of Benedict Arnold,—Grady.	South Natick	REVIEW OF THE BASEBALL SEASON.	
Reuben Raymond Raymoth, Prohibition in Atlanta,—Grady.	Goshen	The baseball schedule of this spring was one of the best and hardest that we have had; it consisted of sixteen games, four of which were not played on account of rain. Three practice games were also arranged, one not being played on account of rain.	
Clarence Herbert Griffin, Centralization in America,—Grady.	Winthrop	The season opened with two practice games with Amherst, the first we lost by a score of 5 to 2, the second we won by a score of 2 to 0, the third game was cancelled on account of rain. Then came our four home games all of which we won: Storrs 2 to our 11, Maine 9 to our 13, University of Vermont 9 to our 10, and Middlebury 3 to our 4. The game with Wesleyan being cancelled on account of rain, our first game away from home was with Trinity at Hartford, the latter winning by a score of 3 to 2. The game was exciting throughout and not until the ninth inning with two men out did Trinity bring in the winning run. Then came our annual Vermont trip which did not turn out quite to our satisfaction, though, considering the disadvantages undergone by a team travelling away from home for any length of time, winning half the games played is not so bad. The game with Vermont Academy was one-sided, the score being 18 to 0 in our favor, and only five innings being played. Although we were defeated by Middlebury and Vermont, both games were close and exciting, the former was 9 to our 6, the latter was 7	
Fayette Dickinson Couden, General Grant,—Dolliver.	Amherst		
Music.			
Sophomores.			
Edward George Proulx, "Vox Populi—Vox Dei!"—Lovejoy.	Hatfield		
William Warrington Peebles, Address to Harvard Alumni,—B. T. Washington.	Washington, D. C		
Frank Wallace Webster, Anne Boleyn,—	Bay State		
Harry James Franklin, Queen Vashti,—Talmage.	Bernardston		
		PROGRAM OF CLASS DAY EXERCISES.	
Planting of Class Ivy,	Pres. Gamwell		
Prayer,	Rev. C. S. Walker		
Ivy Poem,	C. E. Goadon		
Class Oration,	J. E. Barry		
Class Song,	C. L. Rice		
Class Poem,	C. L. Rice		
Campus Oration,	W. A. Dawson		

to our 6. The last game of the trip and also of the season was played with the Millers Falls team Saturday, June 8. The latter were defeated in a very clean game by a score of 2 to 1.

The season as a whole was successful, though the Vermont trip was a trifle disappointing. The team is to be congratulated on its good work and also the manager to whom much credit is due for his conscientious work and careful management.

College Notes.

—The Seniors have chosen Lovell as class photographer.

—The ball game with Connecticut State college has been cancelled.

—Rear Admiral Cautz U. S. N. has been spending the last few days in town.

—W. A. Dawson 1901 spent his Senior vacation at his home in Worcester.

—The Northampton band will give a concert in Amherst sometime this week.

—C. T. Leslie and J. H. Todd spent last week at the home of the former in Pittsfield.

—The college band gave one of the best concerts of the season on the campus last evening.

—The entrance examinations will be held at the Botanic Museum next Thursday and Friday.

—M. F. Ahearn who was injured in the ball game with Univ. of Maine has not yet fully recovered.

—Capt. Z. W. Toney, U. S. A., present recruiting officer at Springfield will probably visit the college this week.

—C. A. Tinker who has recently returned from Buffalo speaks very highly of the Pan-American exposition.

—The class of 1901 will hold their parting banquet at the Norwood, Northampton, on the evening of June 19th.

—It is rumored that already almost one hundred persons have expressed their intention of entering this college next fall.

—L. B. Haskell, 1904, who has been home most of the term has returned to take the final examinations with his class.

—A large number of town people as well as college men enjoyed the concert given by the band on the evening of June 5th.

—The annual mountain day was observed by the class of 1904 on the 7th, by a trip to Mt. Tom and vicinity. Prof. R. E. Smith had charge of the party.

—A party of Seniors, consisting of Rice, Casey, Barry, Smith and Gordon, went fishing one evening last week, and succeeded in capturing twenty-six handsome trout.

—Both houses of the legislature have passed the bill calling for four hundred (\$400) dollars with which to equip the band. The bill now awaits the signature of the governor.

—Much credit is due to the committee which decorated the Drill hall for the Senior prom. The decorations are much better than last year. E. S. Gamwell had charge of the work.

—The college Y. M. C. A. have published a very tasty "Hand Book" for the use of the students. This year the book is better gotten up and contains more information than formerly.

—Capt. J. A. Anderson delivered an address in Worcester last evening. The occasion being the annual reunion of the regiment in which the captain served during the civil war, the 57th Mass.

—The commandant has decided that should the cadets agree to the change that the regulation military cap such as are now being used by our band, will be substituted in place of the old cadet caps.

—Col. Charles Morris, U. S. A., will review the battalion and present the military diplomas at 4 o'clock this afternoon. Col. Morris was formally military instructor at this college at that time holding the rank of lieutenant.

—Captain A. L. Anderson, U. S. A., recently inspected the military department of the college. The captain seemed much pleased both with the drill and the condition of the equipments. Capt. Anderson spent several days in Amherst.

—The class of 1903 have elected the following officers to serve during the fall semester of 1901-02: Pres., E. B. Snell; vice-pres., L. C. Bacon; sec. and treas., G. D. Jones; class captain, G. D. Barrus; seargent-at-arms, W. W. Peebles.

Athletic Notes.

AGGIE, 16; VERMONT ACADEMY, 0.

On Tuesday June 4, Aggie defeated Vermont Academy in a one-sided game by a score of 18 to 0. The academy team was completely out-classed and game was called at end of fifth inning. Bowler pitched for Aggie and was very effective allowing only three hits and giving no bases on balls. Vermont tried all her pitchers but Aggie had no trouble in finding the ball and had fifteen hits to her credit.

MIDDLEBURY, 9; AGGIE, 6.

On Wednesday, June 5, Middlebury defeated Aggie in a rather loose and poorly played game by a score of 9 to 6. The errors made on both sides were inexcusable and costly, some of them being almost ridiculous. At the opening of the ninth inning Middlebury had nine runs and Aggie two. Aggie then pounded out four runs and got the bases full but Drake settled down and retired the next three men in order, Score :

	R.	H.	E.
Middlebury,	9	8	7
Aggie,	6	6	8
Batteries—Drake, McCuen, Bodfish and Cook.			

U. OF V., 7; AGGIE, 6.

The University of Vermont defeated Aggie on Thursday, June 5, at Burlington in a close and exciting game. Aggie took the lead in the first inning and kept it till the eight when by a combination of hits and errors Vermont took lead and maintained it throughout the game. In the ninth inning both teams scored but Vermont was ahead at the end. Robinson's batting was a marked feature of the game.

M. A. C.

	B.N.	P.O.	A.	E.
Paul, s. s.,	4	1	2	0
O'Hearn, 2 b.,	0	4	5	0
Graves, c. f.,	1	2	1	1
Cummings, 1 b.,	1	11	2	1
Bodfish, p.,	0	0	3	2
Cook, c.,	0	4	2	1
Pierson, r. f.,	1	2	0	0
Bowler, 3 b.,	0	3	2	0
Halligan, l. f.,	2	0	0	1
Total,	9	27	12	6

UNIVERSITY OF VERMONT.

	B.N.	P.O.	A.	E.
Robinson, l. f.,	4	0	0	1
Wasson, c.,	1	8	1	0
Orton, 1 b.,	1	7	0	1
O'Halloran, c. f.,	1	5	0	1
Crum, s. s.,	1	1	6	2
Reed, 3 b.,	0	2	3	0
Hutchinson, 2 b.,	1	4	2	0
Kinlock, r. f.,	0	0	0	0
Fogg, p.,	0	0	0	1
Total,	6	27	17	6

Innings.	1	2	3	4	5	6	7	8	9
Vermont,	0	0	0	2	0	0	1	3	1-7
M. A. C.,	2	0	0	0	0	0	3	0	1-6

Two-base hits—Ortoa, Halligan. Base on balls—by Fogg. Struck out—by Fogg 6, by Bodfish 3. Hit by pitched ball—Cook, Bowler. Wild pitch—Fogg. Umpire—Courtney. Time—1 hr., 50 m.

AGGIE, 2; MILLERS FALLS, 1.

On Saturday, June 8, Aggie defeated Millers Falls team in a well-played game by a score of two to one. The game was close and interesting neither side being able to score until the seventh inning when Aggie scored one run and another in the eighth. Millers Falls did not score until the last part of ninth inning, when with a hit, an error and a pass ball one man scored. Two out when the run was made. The next man was fielded out. Score :

Innings,	1	2	3	4	5	6	7	8	9
Aggie,	0	0	0	0	0	0	1	1	0-2
Millers Falls,	0	0	0	0	0	0	0	0	1-1

Batteries—Bodfish and Cook, Clifford and Sullivan.

The University of Norwich game which was dated for Friday June 7, was cancelled on account of the rain.

SUMMARY FOR THE SEASON.

PRACTICE GAMES.

- April 11—M. A. C. vs. Amherst, 2-5.
“ 18— “ “ “ 2-0.

SCHEDULED GAMES.

- April 24—M. A. C. vs. Wesleyan, cancelled on account of rain.
May 4—M. A. C. vs. C. A. C., 11-2.
May 9—M. A. C. vs. Middlebury, 4-3.
May 10— “ vs. Middlebury, cancelled on account of rain.
May 14—M. A. C. vs. Univ. of Maine, 13-9.
May 21—M. A. C. vs. Univ. of Vermont, 10-9.
May 24—M. A. C. vs. Trinity, 2-3.
June 4—M. A. C. vs. Vermont Academy, 15-0.
June 5—M. A. C. vs. Middlebury, 6-9.
June 6—M. A. C. vs. Univ. of Vermont, 6-7.
June 7—M. A. C. vs. Norwich Univ., cancelled on account of rain.
June 8—M. A. C. vs. Millers Falls, 2-1.
June 15—M. A. C. vs. C. A. C.

Total—Won 7, lost 4.

The following men will receive the baseball “M” for the first time : J. Cummings, N. F. Ahearn, J. W. Gregg, C. P. Halligan.

PROMOTION.

Capt. John Anderson announces the following appointments in the battalion for next year :

Cadet First Lieutenant and Adjutant, L. C. Claflin.

Cadet First Lieutenant and Quartermaster, E. B. Saunders.

Cadet Sergeant Major, H. L. Knight.

COMPANY ROSTERS.

Co. A.

Cadet Captain, H. A. Paul.

" First Lieutenant, R. W. Morse.

" Second " J. C. Hall.

" Sergeant, V. A. Gates.

" " L. A. Cook.

" " C. A. Tinker.

" " H. E. Hodgkiss.

" " G. L. Barrus.

" Corporal, F. D. Couden.

" " N. F. Monahan.

" " W. V. Tower.

" " W. W. Peebles.

Co. B.

Cadet Captain, A. L. Dacy.

" First Lieutenant, E. F. McCobb.

" Second " J. M. Dellea.

" Sergeant, C. E. Dwyer.

" " J. H. Belden.

" " F. R. Church.

" " C. I. Lewis.

" " H. L. Bodfish.

" Corporal, W. E. Allen.

" " C. M. Kinney.

" " E. M. Poole.

" " E. B. Snell.

BAND.

Leader and Second Lieutenant, M. H. West.

Leading Musician and First Sergeant, D. N. West.

Sergeant, S. L. Smith.

Corporal, F. W. Webster.

Drum Major, C. P. Halligan.

READING ROOM ASSOCIATION.

The retiring management (April, 1900, to April, 1901) respectfully submit the following report. At the beginning of the fall term it was voted by the students to assess a tax of one dollar and seventy-five cents (\$1.75) on each student to maintain the Reading Room for the year. The actual receipts and expenses are as follows :

RECEIPTS.

On hand April 1, 1900,	\$23 87
Assessments,	122 75
Sale of Periodicals,	12 33
Telephone Tolls,	7 08
Total,	\$166 03

EXPENSES.

Subscription Periodicals,	\$70 00
" Amherst " Record,"	1 75
" " Truth,"	2 08
Settlement old acct. " Mount Holyoke,"	1 50
Telephone Service,	45 69
Record and Receipt Books,	2 10
Paper, Postage and Express,	3 10
Chairs.	3 30
Baseball Picture,	1 50
Letter Box Key,	25
Total,	\$162 77

Balance on hand April 1, 1901, \$3 26

C. T. LESLIE, Treasurer.

Approved :

P. B. HASBROUCK,

H. T. FERNALD.

Department Notes.

DEPARTMENT NOTES.

LIBRARY.

Sooty Mould of the Orange and its Treatment, by Herbert J. Webber, assistant in division of vegetable physiology and pathology, United States department of agriculture. For a number of years sooty mold, a fungus disease of the orange and citrous plants, has caused considerable damage. Until recently, however, the injury done any single grove was usually

slight, and little attention was given to the disease. In 1891 Professor Underwood published a journal on "Diseases of the orange in Florida." He mentioned this malady as of slight importance. Within the past few years, however, owing to the rapid spread of certain insect pests, which the sooty mold follows, the disease has been assuming very serious proportions. Fifty thousand dollars is considered a low estimate of damage done in a single year by this disease. At several places throughout the orange region whole groves are affected, and frequently hundreds of acres of trees in a single locality are literally black with the fungus. Sooty mold of the orange is a black fungus of considerable botanical interest, belonging to the order Pyrenomycetes. The first account of this fungus was given by Pierson in 1822. The leaves and fruits of trees affected with this disease become covered with a black, velvety, membranous coating. In slight attacks this coating covers only limited spots, but in severe cases the greater part of the upper surface of the leaves, fruits and twigs are covered with a continuous membrane, so dense and thick that it may be removed from the leaf and torn up like paper. The report was printed by the United States department of agriculture as Bulletin, Number 13, of division of vegetable physiology and pathology. The publication gives a description of sooty mold, its nature, distribution, plants on which the mold occurs in Florida, effect on orange trees and fruit, methods of preparing for market fruits affected with the disease, orange insects which it follows, methods of treating trees affected, entomogenous fungi as an aid in combatting the fungus, etc.

Flora der Umgegend von Drohobycz, by Edward Hükel. Printed in German.

A Text-book of Zoology, by F. Jeffery Parker, D. Sc., F. R. S., professor of Biology in the University of Otago, Dunedin, N. Y., and William A. Haswell, M. A., D. Sc., F. R. S., professor of Biology in the University of Sydney, N. S. W. The mode of treatment of the subject is such that no previous knowledge of Zoology is assumed. The complete work, describes, in the majority of cases, in some detail, an example of every important class, and, in cases where the diversity of organism is very great—two or more examples are given. The student is thus furnished

with a brief account of at least one member of all the principal groups of animals. Following the table of classification, with its brief definitions comes the general account of the group. This is treated according to the comparative method, the leading modifications of the various parts and organs being described. The description of each group usually ends with some account of its ethology and distribution, and with a discussion of the affinities and of the mutual relationships of its various sub-divisions.

EXPERIMENT STATION.

An interesting and instructive bulletin, No. 73, was recently published* by the Experiment Station. It tabulates the results of various orchard experiments carried on by the Horticultural department last season under the supervision of Prof. Maynard and Mr. Drew. Last year the apple crop in the station orchards was the largest in their history. Orchard No. 1 of 32 trees, planted 15 years ago has been kept under thorough cultivation during the whole time. Fertilizers were used to keep up a uniform growth of 6 to 12 inches, the fertilizers varying according to the season and the crop produced. One tree, Lawver, 8 inches in diameter yielded over 4 barrels of choice apples. Orchard No. 2, of 57 trees is on rather dry, stony land, with a hardpan subsoil, the trees have been planted some 15 or 20 years. Strips of land about eight feet wide between the rows were cultivated throughout the season, the grass growing along the line of the trees was cut twice during the season, and allowed to lie on the ground without removal, serving as a mulch, and a protection to the fruit falling on the ground. Nearly every tree bore a full crop. Orchard No. 3, of 28 trees, is on rather moist, stony land, with a hardpan subsoil, and has not been cultivated for 15 years. The grass has been cut twice or more each season and left on the ground when cut, or raked under the trees. The same fertilizers were applied as to Nos. 1 and 2, and all the trees made a satisfactory growth. The trees in all three orchards, except checks, were sprayed with Bordeaux mixture and Paris green, three times during the early part of the season, and those most subject to the scab were sprayed a short time before the fruit was gathered with a weak solution of copper sulfate. Most of the fruit in the above orchards was thinned when about

one inch in diameter, checks being left whenever necessary. Careful records were kept of the cost of thinning, and the value of the fruit on the thinned and unthinned trees estimated.

About 40 varieties of peaches fruited during last season, and the fruit was of unusual size and quality. The varieties showing greatest value were: Mountain Rose, St. John, Early Crawford, Old Mixon, Late Crawford, Champion and Elberta.

The plum crop in all parts of the state was the largest and best in the history of the fruit, especially the varieties, with only one or two trees of each, ranging from one to thirty years old. Nearly all the varieties of European plums. The orchards contain a large number of varieties fruited. The black knot was prevented from injuring the trees by spraying, and the brown rot was nearly controlled in the same way.

A convenient calendar is appended to this bulletin of various insecticides and fungicides, and the report describes the results of the use of those compounds on the injurious diseases to which fruits are subject. The principal fungicides used during the season were the copper sulfate in the form of Bordeaux mixture, and a simple solution of copper sulfate and water; but in a few cases a trial of other well-known combined insecticides and fungicides was made.

Alumni.

'91.—M. A. Carpenter, 103 Belmont St., Cambridge, Mass.

'92.—Jewell B. Knight of Belchertown, a graduate of the Massachusetts Agricultural College, has been honored by an appointment from the British government to go to India and establish an agricultural college. Mr. Knight is taking a post-graduate course at the agricultural college at Amherst, having graduated from that institution about six years ago. He will receive the degree of master of arts next week. Mr. Knight has to guarantee a three-years' stay in India, and will start for that country in a few weeks. He is a graduate of the Belchertown high school and has taught in that school, also in the district schools, besides giving private tuition, fitting many pupils for the various colleges in the state. Mr. Knight's engage-

ment has been announced, the marriage to take place immediately upon his completion of work at Amherst.

Ex-'92.—N. P. Davidson, Colonel I. N. G. and Superintendent Northwestern Military Academy.

'93.—E. C. Howard, Principal Center Grammar School, Northampton, Mass.

'94.—Horace P. Smead has recently secured a fine position as farm superintendent in Dorset, Vt. The farm contains over 1800 acres and has over 150 head of stock and is owned by a Mr. DeNotbeck of New York city.

'94.—Charles Leorrett Brown was married to Miss Charlotte Eliza Cooper, on Wednesday June 5th, at Springfield, Mass. At home after August 1st, on Westfield St., Tatham, Mass.

'95.—Arthur B. Smith married in Chicago May 29, to Miss Myrtha L. Zeller. At home after Sept. 5, 544 Winnenac Ave., Ravenswood, Chicago.

'95.—An interesting article entitled "Plant Propagation" appeared in the last issue of the *Texan Stockman and Farmer*, from the pen of E. A. White, assistant professor of horticulture at the Texas Agricultural and Mechanical College.

Ex-'95.—Alfred W. Davis, 88 Linden Ave., Flushing, L. I.

'97.—It gives us pleasure to announce the marriage of Mr. Charles Goessmann to Miss Marie Dunphy, Wednesday, June 5th, at New York city. They will reside in Worcester, Mass.

'00.—F. Howard Brown is now occupying a farm at Marlboro, Mass.

Ex-'00.—Alfred D. Gill is now in the employ of Geo. A. Lowe Co., dealers in wagons and farm machinery, Ogden, Utah.

Intercollegiate.

The Bible College of Springfield is to be removed to Hartford.

The English athletes may train this summer at Weston field, Williamstown.

The total amount of Yale property exempt from taxation amounts in value to over seven million dollars.

Exeter won from Andover 61 to 43 in the annual dual track meet at Andover. Two dual records were broken.

The first issue of the Tufts *Engineer*, a new magazine published by the Tufts Engineering society, appeared last week.

Richard Sheldon, 1902, of New York city, has been elected captain of the Yale University track team for next year.

The Dartmouth baseball team has elected Lawrence Delano Varney, 1902, of Dover, N. H., as captain for next year.

A recent issue of the Boston *Transcript* contains an article which is a plea for our college, written by Franklin Ware Davis.

Michigan has again demonstrated her ability in debate by winning from the University of Pennsylvania team in the annual contest.

Recent ball games: Holy Cross 3, Brown 0; Brown 4, Harvard 3; Yale 9, Carlisle 5; Wesleyan 1, Amherst 0; Amherst 4, Holy Cross 3.

President Harper of the University of Chicago has just announced that the university had begun to establish affiliated preparatory schools in different parts of Europe.

Columbia has received \$100,000 from an anonymous giver to be devoted to the establishment of a chair, for the study and teaching of the Chinese language.

The United States Naval academy won the intercollegiate fencing championship by a single point and Cornell was second, Columbia third and Harvard fourth.

There are 700 entries for the intercollegiate track games, representing twenty universities and colleges; Harvard has 84, Yale 80, Princeton 69, Pennsylvania 85, Cornell 94, and Columbia 72.

On Friday, May 31, and Saturday, June 1, the Pan-American intercollegiate athletic championships were held on the athletic field of the Stadium on the grounds of the Pan-American exposition.

While Moses was not a college man,
And never played foot ball,
On rushes he is said to be
The first one of them all,—Ex.

Sir William C. MacDonald, of Montreal, who has already given a great deal of money to McGill University, has just given \$150,000, which was used for the endowment of the chairs of Botany and Chemistry.

The month of February was full of interest to the Johns Hopkins university. In certain ways a critical point was reached in the fortunes of the institution. The most significant event was the presentation of a new site for the buildings of the university. Several gentlemen of Baltimore have offered a plot of 176 acres in one of the finest locations in the vicinity for a new home. The conditions are that a million dollars shall be raised for an endowment fund, to be used only for the purpose of instruction. The site offered is a beautiful spot diversified with hills and forest, and admirably suited for academic purposes. It is also of historic interest, as the property once belonged to Charles Carroll, of Carrollton, and the mansion now standing upon it received the name "Homewood" from the son of the signer of the Declaration. If the million dollars can be raised the Johns Hopkins university will be started on a new career, and the outlook is altogether hopeful.

Exchanges.

The *Radiator* from New Haven is remarkably interesting this month.

The literary part of the *Brunonian* of Brown University is especially good this month.

The Latin and High School *Review* is quite the most pretensions of our High School exchanges.

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We beg to remark that the Portland High School *Racquet* has a very artistic drawing on its cover.

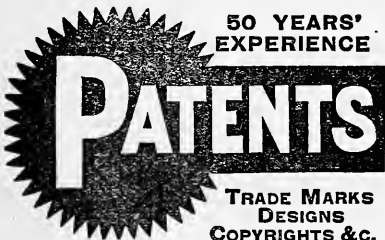
The Vermont Academy *Life* is excellent as usual. The paper used in publishing is especially worth noticing.

The Phoenix of Swarthmore sends an engraving of the Hon. J. K. Richards Solicitor General of the United States and who was in the class of '75 of that college.

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